Clinical Lecture ON "COLECTOMY."

Delivered at the University College Hospital, on April 27th, 1882,

BY JOHN MARSHALL, F.R.S.,

PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE AND SENIOR SURGEON TO THE HOSPITAL, ETC.

PART I.

GENTLEMEN,—I desire to direct your attention to-day to a case, recently admitted here, of chronic intestinal obstruction, the seat and cause of which could not be ascertained, even under the use of an anæsthetic, but which was discovered, on a median abdominal section, to be due to a circumscribed cylindrical growth, situated in the descending colon. Whereupon, this growth was forthwith removed, through a left lateral abdominal incision, by resection or excision of the diseased part, together with small adjoining portions of the intestine. The two free ends of the bowel were then attached to the borders of the lateral wound in the abdominal walls, more or less after the manner adopted in colotomy, whilst the median abdominal section was closed by the usual deep abdominal sutures.

For this operation ("Excision de l'intestin," Fr.; "Darmresection," Ger.) I would—although, of course, a *portion* only of the colon is "cut out"—propose, as a short and available designation, the term "Colectomy," thus conveniently distinguishing it from a simple "opening" of the colon, or Colotomy; and so, as a general title, applicable to the cutting out, resection, or excision of any part of the intestinal canal, "Enterectomy" might be opposed to "Enterotomy," which is a mere incision into the bowel.

I will first read to you the notes of the case in question, furnished to me by Mr. Stanley Boyd, our Surgical Registrar; and I will then make some remarks, by way of commentary, on the operation generally, and on this case in particular.

History.—B. B——, aged forty-nine, a married woman, was admitted under the care of Mr. Marshall on April 8th, 1882. She was sent to University College Hospital by Mr. Evershed, of Hampstead, who had treated her for several attacks of intestinal obstruction, and was finally led to the diagnosis of malignant disease, but he could not be sure of its seat. His notes, which he kindly sent to the hospital, render the previous history of the patient complete. It appears that in July, 1881, the patient's bowels, though previously regular, were confined for a week, during which time she suffered from colic. Three weeks later the bowels again became confined, and a dose of castor oil was taken; this was followed by much pain in the lower part of the abdomen, which was relieved by fomentations. After this she remained tolerably well, but weak, until Oct. 7th, when she applied to Mr. Evershed for the relief of vomiting, which passed off in two or three days. At this time she was well nourished, and showed no signs of grave disease. Between the end of October, 1881, and the end of January, 1882, the patient had at least seven attacks of obstruction, which lasted from one to ten days; they were relieved by opium and enemata, with a mild purgative (Hunyadi János), given once or twice. During these attacks the symptoms were these: constipation, but it is not stated whether flatus passed or not; vomiting, which in all but one instance became stercoraceous; more or less swelling of the abdomen; much colic; and often violent movements of the coils of intestine seen through the abdominal walls. At the end of an attack the bowels sometimes acted copiously, and sometimes large, very fetid scybala passed, relief soon following in either case.

On December 24th a tumour was felt in the left iliac fossa, but this was probably fæcal, as it was never detected afterwards. From the end of January to Feb. 16th Mr. Evershed has no note; but on this latter date he found her vomiting "coffee-grounds," whilst on the following day the vomit was black; he could feel no tumour of the stomach. Of late, the patient had emaciated considerably. On Feb. 20th, after three days' constipation, the vomiting recurred, and on March 2nd "coffee-grounds" were again thrown up. After this no vomiting is recorded, and it is stated that the bowels acted with more regularity under the influence of Tamar Indien. On March 31st œdema of both legs appeared, but subsided in a day or two. Previous to this illness the patient seemed to have enjoyed good health. She married at the age of thirty-five, and had a miscarriage at the fourth month, when she was forty-one. Her mother is alive and healthy, aged seventy-five; her father died of phthisis, aged fifty. She knew of no instance of tumour in the family.

State on admission (April 8th).—The patient was very pale, thin, and careworn. Two days earlier she had passed some scybala. The abdomen was moderately full and tense. There was nothing characteristic in its shape; it was neither "broad" nor "pointed," nor was it full in certain regions and sunken in others. There were, however, slight rounded elevations of the abdominal wall on either side of the recti muscles, having a nearly transverse direction, and obviously due to distended coils of small intestine; but no peristalsis was observed. There was not the least tenderness, even on deep pressure, in any spot, and no tumour was detected on the most careful examination. Neither liver nor spleen was felt. With the patient lying flat on her back there was dulness and deficient resonance, and when turned slightly on to one side a good resonant note extended to the edge of the kidney in either loin. On examination per rectum the lower end of the bowel was found to be empty and greatly dilated; bulging into its anterior wall was a mass of small intestines which occupied Douglas's pouch. Below the sacral promontory the bowel regained its normal size. On a subsequent occasion a long tube was passed in, apparently without doubling on itself, for about one foot, and an enema of three pints was given, which produced deficient resonance on the left side reaching up to the ribs. A larger quantity could probably have been injected. The uterus was in its normal position and just two inches long; menstruation had ceased about six months, and had been normally performed. A subsequent careful examination of the abdomen under chloroform added nothing to the above data.

Admitted on the 8th, she had no symptoms until the 12th, when she began to complain of abdominal pain. Her bowels had not acted since the 6th, in spite of a dose of confection of sulphur; half an ounce of castor oil was given, again without effect, and in the afternoon the colic became more severe. She was sick slightly after the oil. In the evening an enema produced a small motion; but the pain remained severe all night, and vomiting of fluid, chiefly beef-tea, came on.

The following morning (13th) the patient was looking very ill; her face was pale, and the features sunken and drawn by pain. The abdomen was fuller and more tense than on admission, and was the seat of frequent paroxysms of pain, each lasting a few minutes, starting from the hypogastric region, radiating thence over the whole abdomen, and being accompanied by obvious peristalsis. No point of cessation of peristalsis was noticed. These symptoms continued during the day, with occasional vomiting. At night a simple enema was given, and after a dose of opium the pain ceased and the patient slept quietly.

On the 14th and 15th there was still some pain, but no vomiting occurred, and the abdomen became less full. The patient slept well on the night of the 14th. She took food readily, as, indeed, she generally did, unless in severe pain. An enema of three pints brought away nothing.

Diagnosis.—The wasting and rapid ageing of the patient, although she took food tolerably well, suggested the presence of a malignant stricture, probably epitheliomatous; but it was difficult to say how far the symptoms were referable merely to the pain and vomiting which she had suffered; but whatever the nature of the obstruction, its seat was obscure. The chronicity of the case pointed strongly to the large intestine, but the abdomen was not broad in shape, no tumour or scybala could be felt in either iliac fossa, or elsewhere along the course of the large gut, though both fossæ could be well examined under chloroform. There was no dulness in either loin to indicate a full colon, and no "colonic" note to show that the bowel contained gas. Rectal examination revealed nothing. The long tube passed one foot, and an enema of three pints was easily given, and seemed from an accompanying diminution of resonance in the left flank to have entered the descending colon. But, as the patient was lying on the left side, it was possible that fluid contents had gravitated into the small intestines lying over the descending colon, a source of movable dulness

which, as remarked by Mr. Boyd, is often overlooked. The amount and uniformity of the abdominal distension were sufficient to prove that the obstruction, if in the small intestine, was near the lower end. If, however, the suspicion were correct that the cause of the obstruction was an epithelioma, the probability of its seat being in the large intestine, somewhere beyond the cæcum, was greatly increased.

Treatment.—The seat of stricture being, after the most minute examination, still doubtful and undecided, Mr. Marshall resolved to explore the abdomen through an incision in the mid-line, and, if possible, to remove any growth which might then be discovered. Accordingly, at 2.30 P.M. on April 15th ether was administered and the hand introduced into the abdomen through an incision extending from just below the umbilicus to just above the pubes. An ounce or two of clear yellow fluid ran out. The cæcum presented in the wound, and was first examined. It was normal to both eye and touch, whilst some small intestine, which also appeared, seemed too red. A good deal of the small bowel was now drawn out and was protected from the spray as much as possible by cloths wrung out of carbolised water, whilst the sigmoid flexure was examined. It was found to be quite empty, and, on following it upwards, a mass nearly the size of a hen's egg was felt fixed in the descending colon between the lower end of the kidney and the iliac crest. As no impression could be made on it by the finger, the conclusion that it was a growth, and not a fæcal impaction, was obvious. There being no free mesentery to this portion of the bowel, it was quite impossible to bring the latter out through the mesial wound, though an attempt to do so was made. This wound and the intestines protruding from it, were therefore covered by a guard, and the patient was turned on to her right side with a stout sand-bag placed across beneath her. An incision three inches long was made parallel to the last rib, and an inch and a half above the posterior half of the iliac crest, and was rapidly carried down to the tumour, which lay beneath this spot. The peritoneum was opened, the colon was pushed through the wound and tied temporarily with thick catgut ligatures, one above and one below the new growth; then this latter was cut out by scissors, together with an inch of intestine above and below it. In the former position, the intestine was only moderately distended, but evidently much hypertrophied, whilst below the growth it was empty, and even smaller and thinner than natural. Two arteries, only one of any size, entered the mass from behind; these were secured with Wells's forceps, and then tied. The strong ligature upon the upper piece of the bowel being removed, a quantity of semi-fluid offensive fæces escaped, the wound being carefully protected. In a few minutes this ceased; the parts were well sponged with a solution of chloride of zinc, and the open end of the bowel was fixed to the peritoneal edge of the lumbar wound by a row of deep silk sutures passing through the serous and muscular, or the muscular coat only, of the gut, whilst a superficial circular set of finer catgut sutures was applied through its whole thickness and through the skin. The lower end of the bowel was left just projecting from the lower and hinder part of the wound, with the strong catgut ligature drawn tight upon it. Whilst this was being done, the wound in the mid-line of the abdomen had been closed in the usual way with carbolised silk sutures, and had been dressed antiseptically. A pad of salicylic wool was placed over the wound in the loin, and a body bandage around all.

From first to last, including the preliminary examination, the sewing up of the parts, and the final dressings, the patient was under ether for quite an hour and a quarter. For some time the pulse remained fair; but for the last twenty minutes it could scarcely be felt at the wrist, though the patient still breathed well. Two brandy enemata were given, and a subcutaneous injection of ether was also administered. Half an hour later she had a very small regular pulse of 108, and was quite conscious; the pulse then improved steadily.

Progress of case.—In the evening it was found that feculent matter had spread beneath the antiseptic dressing; so that, after thorough cleansing, the wound in the mid-line was covered with protective, and a pad of lint dipped in carbolic lotion; whilst an oakum pad was placed over the "colectomy" wound. The patient suffered much pain during the first seven or eight hours; but after the injection of three minims of morphia solution, she became easy, and slept at intervals during the night. There was no vomiting, and the bowel relieved itself copiously. During the whole of the following day (16th) she seemed to be doing very well. The temperature fell to 96° after the operation, and then rose from 98° to 99·2°; the pulse was 122, regular and compressible. She took plenty of food. The tongue was moist and thinly furred; the bowel discharged fæces well; no vomiting occurred; the abdomen was flat; there was little pain, and no tenderness. The wounds were quite normal. But during the night she did not take food so well; and by the morning of the 17th it had to be poured down her throat. She then looked very ill, and said she felt so; she lay with closed eyes, noticing nothing. Temperature for twenty-four hours, 97·4° to 98°; pulse 130, small and compressible; no vomiting; the bowel still relieved itself. There was apparently nothing wrong about the wounds, but the abdomen was a little full, and slightly tender; this swelling increased, but the anterior surface never projected beyond the level of the ribs. In the afternoon abdominal pain began, and was relieved by opium until 2 30 A.M. on the 18th, when it returned and persisted, in spite of more opium and hot fomentations. The bowel now ceased to act, the knees were drawn up, and vomiting set in, and continued till death at 4.40 A.M. The temperature during the last twenty-four hours was 97·2° to 98°; the pulse 128, its quality showing progressive heart failure.

Autopsy.—A post-mortem examination was made ten hours after death. Rigor mortis was present in the legs. The abdomen was moderately full; the wound in the mid-line was united by first intention everywhere, except at the skin between the lowest two stitches; no adhesions existed between it and the intestines. There was diffuse peritonitis starting from the lumbar wound; and the hollows of the abdomen contained some thin blood-stained puriform fluid, with no flakes of lymph in it. One or two coils of small intestine were adherent by recent lymph in the left loin, and the descending colon was similarly attached to the parts about the wound. On raising it, a small collection of pus was opened, and from the cavity containing it, a finger passed easily out between the bowel and the edge of the lumbar wound; but elsewhere, the union between these parts was tolerably firm. There was no sign of extravasation of fæces. There was very little in the intestines; the wall of the whole colon, above the line of excision, was much thickened, and its mucous membrane had a uniform deep brown colour. From this, up to the œsophagus, the alimentary tract was normal; no ulcer or scar could be found. The liver was small, and on its surfaces, chiefly the upper, were fourteen yellow-white new growths, most of which were covered by thickened peritoneum containing visible vessels; most of these were distinctly umbilicated. Many other growths were scattered through the substance of the organ. They varied in size from that of a small chestnut downwards. On section, they were grey-white and firm, with centres made up of spots of soft opaque yellow material. Each was surrounded by a bile-stained ring. No other secondary deposits were discovered. The kidneys were probably fibroid; they were slightly granular on the surface, and tough. There was nothing noteworthy in the other organs. A microscopic examination of a nodule in the fresh liver showed the growth to be a columnar epithelioma. The diseased mass, which was removed with a piece of the intestine, was about one inch and a quarter long, and so thick as to leave a channel through it only as wide as a No. 8 catheter. Its thickness was uniform all round the gut. It formed not an annular, but a short cylindrical stricture. At its upper surface, the margins of the central aperture were flattish and slightly ulcerated; whilst on its lower aspect its rounded shape and central opening, with the surrounding piece of bowel, resembled closely in appearance the cervix uteri, with the os in the middle, and a portion of the vaginal walls around. Its epitheliomatous character is undoubted.

[The concluding half of this lecture, consisting of an historical *résumé* of previous cases of excision of the intestine, and some clinical remarks on the subject, will appear next week.]

A BILL is now before the Legislature of New York, making it compulsory for retailers of poisons to place upon the box or bottle a label stating what is the proper antidote to the poison in question.

AT the recent examination for the medical degrees of the Calcutta University there were twenty candidates for the degree of M.B., of whom ten were found qualified, and twenty-nine for the degree of L.M.S., of whom ten passed.

Clinical Remarks

ON A CASE OF

PTOSIS WITH PULMONARY DISEASE OF TUBERCULAR (?) ORIGIN.

Delivered at the Middlesex Hospital,

BY R. DOUGLAS POWELL, M.D., F.R.C.P.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL, AND TO THE HOSPITAL FOR CONSUMPTION AT BROMPTON.

GENTLEMEN,—The case before us is one of interest and rarity, and admitting perhaps of more than one interpretation. Some of you saw it the day after admission, and you then heard the general reasoning upon which the diagnosis and treatment were founded. The case is that of a boy, aged thirteen, who ten days ago was admitted with headache and complete ptosis on the right side. The boy answered questions intelligently, and gave the following account of himself, which has been since supplemented by inquiries of his mother:—On Jan. 8th, having the previous day felt in his usual health, he was taken with headache affecting the right frontal region, and which was so severe as to oblige him to go home and go to bed. The same day he vomited and had several rigors, and the bowels were slightly relaxed. Three days later, on the 11th, the right eyelid dropped, and had continued so since, thirst and feverishness also continuing up to his admission on the 13th. On admission, his headache was severe and fixed in the right fronto-orbital region; it was of an aching character. The ptosis was complete, and was associated with a moderate degree of external squint. Both pupils were somewhat large, the right slightly larger than the left. They were sluggish, about equally so, to light. No other paralysis of the facial muscles, palate, tongue, or limbs was present. The boy was pale, with a dull expression of countenance (increased by the dropped eyelid), but intelligence, as before said, was unaffected. The teeth were white and sound. He was of spare build, but not emaciated. The tongue was clean; the bowels had not acted for two days. Temperature 102·2°; pulse 120, regular in force and rhythm, and feeble. He complained of no chest symptoms, and the breathing was not laboured; but on examination slight but distinct dulness was elicited on percussion below the right clavicle; the breath sounds here were of weak bronchial quality, and were attended with an all moist crackle. Vocal resonance increased. A few bronchial râles were scattered over this side. At the apex of the opposite lung some sibilant rhonchus was heard, and after cough a slight crumpling crepitus could be heard on deep inspiration; the heart sounds were healthy; urine sp. gr. 1020, no albumen; abdominal organs natural, save that the spleen was slightly enlarged, being perceptible below the margin of the cartilage. Evening temperature 103°.

We approach the diagnosis of this, as of any other case of disease, whether within the skull or elsewhere, from two points of view—(1) as to the locality of the lesion; and (2) as to the nature of the disease.

Locality of lesion.—The lesion in this case could hardly be within the brain substance, for if so the paralysis would not have been limited to the third nerve. Again, the lesion was not within the orbit, for there was no fulness, tension, or other inflammatory sign about the eye or its neighbourhood, such as must have accompanied an inflammatory lesion or tumour, causing pressure within the orbit. It is unlikely, but not impossible, that the disease was located within the cavernous sinus, neither the fifth nor, so far as we could make out, the fourth nerve being involved. My colleague Mr. Lang also found that the fourth nerve was not affected. We must take it, then, that the lesion was situated about the nerve between its obvious origin at the crus and the sphenoidal fissure, involving some portion of the trunk in its course along the base of the brain.

Nature of lesion.—This is a question of far greater importance than that concerning the exact locality of lesion, since upon the answer depends our treatment of the case in the vast majority of instances, whereas, save in those few exceptional cases in which operative measures are feasible, a knowledge of the exact position of the disease, although of great scientific interest, is of little practical value. Now, in the present case, the facts which presented themselves for prominent consideration were: (1) That the illness began acutely with pain in the head, attended or speedily followed by general constitutional disturbance; (2) then, after the lapse of two to three days, came local palsy, limited to the third nerve; (3) the pain and paralysis remained strictly localised, the pyrexia continued, and, on careful examination on the fifth day, signs of disease were observed at the apices of both lungs.

In endeavouring to come to an exact "pathological diagnosis," if I may use the term in cases of obscure brain disease for the purpose of treatment, it is well rapidly to run through the simpler structures into which the intracranial parts may roughly be resolved, and to briefly review the diseases to which each structure is liable. Thus we have (1) *endocranium*—a fibrous *endosteum* liable to injury, to involvement in bone disease, and to lesions from syphilis or rheumatism. There is no history or appearance of syphilis in this boy, and he has no heart or joint disease, or other sign of past or present rheumatism, nor has he presented any sign of bone disease; (2) *pia mater*—a fibro-vascular and lymphatic membrane covering the brain, sheathing and supporting its vessels and lymphatics, dipping into its sulci and penetrating to the ventricles. This widespread and deeply permeating structure is liable to primary inflammation (of most rare occurrence, however); to inflammatory lesions secondary to adjacent injury or bone disease, to the deposition of tubercle and to the syphilitic and rheumatic poisons. It is also the usual seat of the growth of tumours: gliomata, gummata, and tubercular or scrofulous. These latter (tumours) usually arise from offshoots of pia mater within the depth of the brain, involving its substance; for reasons already given they hardly enter into our present diagnosis. I may mention, however, that Mr. Lang has been kind enough carefully to examine the eye with the ophthalmoscope, and finds no neuritis or other disease present. I may remind you that up to recent times, at least, optic neuritis was regarded as of immense value in the diagnosis of intracranial growths. We have excluded rheumatism; we find no grounds for syphilis, the most common cause of single nerve paralysis in the adult, but I believe a very rare cause of palsy of the third in children. The boy has no sign of bone disease; on the other hand, the idea of tubercle is favoured by other phenomena present. To pass on, however, to other textures, (3) the vascular system of the brain consists of veins and arteries (we may exclude lymphatics in diagnosis). The veins may be the seat of thrombosis, leading to symptoms from dropsy of brain cavities which are beyond our concern now. The arteries are liable to embolism, atheroma, aneurism, and rupture. The arteries of the brain, as of other parts, consist (as far as diagnosis is concerned) of sheath, lining, and muscular coat. The sheaths of the brain vessels are really pia mater offshoots, and have been so dealt with. Their lining may be affected with atheroma (from old age, syphilis, gout, or uræmia), a disease to which childhood is not liable. The muscular tunic of the vessels is liable to be affected by nervous impressions, reflex and other, giving rise to headache, sleeplessness, drowsiness, or delirium, all commonly observed in children as evanescent conditions. But none of these conditions can ever account for local pain, limited motor paralysis, and general pyrexia. (4) The *brain structure proper* may be degenerated in old age, or as the result of vessel disease or embolism. It may be compressed or ruptured by hæmorrhage, or tumour, or abscess, neither of which lesions can be seriously entertained in the present case, on account of the mode of onset and restricted limit of the paralytic affection. Coming lastly (5) to the *cranial* nerves, they consist of neurilemma and nerve fibre proper, and may be affected by simple atrophy (usually the result of disuse), by syphilitic and rheumatic inflammation, affecting the neurilemma, and leading to nuclear growth, causing compression and arrested conductivity of the nerve proper. It is a rule in clinical medicine that whenever a single nerve is paralysed (except in paralysis of the seventh from exposure) we have first to exclude syphilis, and then to seek for bone disease, or the rheumatic diathesis, or the possible antecedence of diphtheria. Rheumatism and diphtheria need not further detain us in reference to the present case. It is well known that in the adult ptosis is commonly due to syphilis. A well-marked instance of double ptosis from this cause was recently in Dr. Coupland's wards. I believe, however, it is not common in congenital syphilis in the child. I have never seen or read of an instance. Bearing

this in mind, and again returning to the acute inflammatory onset of the disease, with pain followed by paralysis, and with the presence of incipient disease at the apices of both lungs, I do not see how we could well escape the diagnosis that the third nerve had become compressed from lymph locally effused about its trunk, the result of tubercular inflammation. It was this diagnosis upon which the treatment of the case was founded.

If anything could be done in such a case it must be done quickly, and where easily destroyed and vital parts are attacked by inflammation and are beyond the reach of local treatment there is only one drug which is worth serious consideration, and that drug is mercury, iodide of potassium coming a long way afterwards. Accordingly we gave this boy ten minims of solution of perchloride of mercury with one grain and a half of iodide of potassium every three hours, not hopefully I must confess, for the prognosis looked most unpromising. The pain continued next day, the temperature ranging 102·2°, 98·6°, and 99·6°. On the 15th the temperature was 100·2°, 102·2°, 99·4°, 99·6°. 16th: 102°, 101°; pulse 120; tongue red and glazed; pain still marked; evening temperature 102°.—17th: 6 A.M., 101°; 10 A.M., 99·4°. Bowels not open; tongue red still; dull constant pain in right temporal region, parts about right orbit appreciably hotter to the hand than on the opposite side. Movement of eye much improved; can half open eye; inward rotation almost complete; pupils a shade larger; pupils act to light. Chest signs improved: spleen still perceptible. Evening temperature 100°. The perchloride of mercury to be increased to fifteen minims, and the iodide of potassium to two grains, every three hours.—18th: Temperature 99·8°; pain better; bowels confined. Ophthalmoscopic examination discovered nothing abnormal. Evening temperature 99°. The symptoms now rapidly amended. On the 21st the pain had gone, the temperature was subnormal, and there was no return of pyrexia, and the boy has now (February 3rd) been up two days, all paralysis has vanished, the chest signs, too, have almost completely cleared up, there being now only slight harshness of breath sound at the right apex.

The last question we have to ask is, Does the complete subsidence of symptoms and signs under treatment by mercury and iodide warrant the conclusion that the disease was not tubercular after all? I think not. Any considerable post-mortem experience will suffice to assure us that miliary tubercle *per se* is not a very serious product. If universally and thickly distributed, it is, of course, a part of a general and severe blood contamination, and, further, by mere aggregate bulk, impedes and arrests vital functions; otherwise, when locally distributed, the symptoms occasioned are mainly proportional to the inflammatory lesions started by the tubercle. Apart from such inflammatory association, tubercle may, and frequently does, shrivel, or become horny and quiescent. I would by no means advocate the treatment of tubercular lesions generally by mercury; but when the pia mater or peritoneum is acutely involved and in the first stage of the disease, I believe mercury to be worthy of trial. Some of you may remember a countryman in No. 9 bed of this ward, who was admitted with peritonitis. There was no history of syphilis, and the man did not look phthisical; but he had some chronic disease at the apex of the left lung. We plied him with small doses of mercury guarded with opium, and kept the gums tender for some weeks, during all which time he improved; and he left the hospital convalescent. In any case, where we can find evidence of any special poison or diathesis, as that of syphilis or rheumatism, we of course boldly adopt the indication and give mercury and iodide freely in the one case, or salicylate of soda in the other, and often with brilliant results. I wish, however, to urge you in the far more serious cases which are presumably tubercular, not on that account, to stand hand-folded and in despair, or content only to apply a little ice to the head, and to give a little bromide. If you catch the case in a sufficiently early stage try mercurial treatment. Remember the frequency with which you meet with a local tuberculosis in the lungs with often transient activity of symptoms; any similar attack affecting the meninges of the brain is attended with far graver symptoms, and commonly proves fatal, but we must not regard it as necessarily beyond the reach of treatment. If the view I have taken of this case be correct, the tendency to a recurrence of the malady must not be forgotten, although the boy appears now to be thoroughly convalescent.

ON

DIGITAL EXPLORATION OF THE BLADDER THROUGH INCISION OF THE URETHRA FROM THE PERINEUM.

BY SIR HENRY THOMPSON, F.R.C.S.,

SURGEON-EXTRAORDINARY TO H.M. THE KING OF THE BELGIANS, CONSULTING SURGEON TO UNIVERSITY COLLEGE, ETC.

THE subject of digital exploration of the bladder has excited much interest in the profession, if I may judge from the discussion which took place respecting it last month at the Royal Medical and Chirurgical Society, and from the numerous inquiries I have lately received in relation to it. It is in reply to these, rather than as an attempt to treat the subject fully, that I desire to offer a few remarks respecting it. For myself the proceeding has for some long time been regarded as a promising means of prosecuting diagnosis in exceptional cases, and still further as likely to constitute an efficient mode of treatment for some of them. Accustomed to use the index-finger as much as possible in a large experience of lithotomy in its several forms—lateral, median, bilateral, and medio-bilateral,—I have been in the habit of examining the neck of the bladder, and scrutinising, with much interest, its characters, often greatly differing as they do in the cases of elderly men. But it is only during the last few years that I have gradually realised the fact that it is possible, in not a few cases, to explore through a small perineal incision the whole, or nearly the whole, of the internal surface of the bladder with the index finger. A necessary condition, of course, is that the bladder should be empty; and in that condition it is—as is sometimes perhaps not sufficiently recognised—no longer a cavity, as represented in diagrams, but a mere cul-de-sac at the end of the urethra. Taking it for granted that the incisions to be made, which involve only the urethra with the tissues between it and the surface, and not at all the bladder and prostate, enable the operator to place the last joint of his left index finger within the neck and thus to draw it somewhat towards him, the exploration may be accomplished in the following manner. Maintaining his finger at the spot described, the operator should stand up at the foot of the table, a little to the left of the patient (who is in the lithotomy position), so as to make firm pressure with the right hand above the pubes, the resistance of the abdominal muscles being overcome by the influence of ether. He may now easily feel, unless the patient be very stout, the opposite side of the bladder coming into contact with the tip of his finger; and by concerted movements of supra-pubic pressure by the right hand, with slight movements of the left index in the bladder, almost every portion of the internal coat of the latter may be brought under examination. If the patient be thin, the proceeding is easy; it becomes less so in proportion to the depth of perineum and thickness of the supra-pubic coverings, both of which are increased by fat. In the latter case aid may be rendered by an assistant, who makes firm pressure with both his hands, but the operator should also employ, if he can, the concerted movements described.

Now, I think, it will be admitted that, however effective is the ordinary examination of the bladder by the sound and by rectal examination, and it amply suffices for the great majority of cases, there are still a few obscure examples of disease, respecting which, even in the most experienced hands, examination does not reveal facts which it is of the utmost importance to ascertain. This being so, the question arises, Can digital exploration of the bladder be performed without much risk to the patient? I unhesitatingly answer in the affirmative. The results of external urethrotomy, on a grooved staff previously introduced, an operation largely performed by Professor Syme about thirty years ago—results which were jealously watched and closely scrutinised—go far to warrant this reply. But although the external incisions in his proceeding were almost identical in situation with those I shall advise for digital exploration, the internal incision in Syme's operation was made not only in tissues very often largely diseased, but was far more extensive than that required for the purpose now in view. To this evidence I may add that I have myself opened the urethra from the perineum many times for various purposes besides that of extracting calculus; and I do not recollect a single

fatal result. Fifteen cases of external division of stricture on a staff are included among them. Next, the method of operating in order to reach the bladder from the perineum demands a few words. I think there is little ground for doubting that a vertical median incision—that is, in the line of the raphe—introduces the finger by the shortest and most direct route. The prominence formed by the operator's bended knuckles, while using his index-finger as an explorer, lies equidistant between the nates, and is firmly pressed on the perineum in a straight line from the external surface towards the centre of the bladder. Any line right or left of the median must of necessity lead obliquely to the centre, and be a longer line, because it commences at a point on the external surface more distant from the neck of the bladder than is the raphe of the perineum. Accordingly I always adopt the central incision, using a median grooved staff, and a long, straight, narrow-bladed knife, with the back blunt to the point. Having placed the left index-finger in the rectum the knife may be introduced, edge upwards, about three-quarters of an inch above the anus, with or without a small preliminary incision of the skin (I prefer the former), until the point reaches the staff about the apex of the prostate gland, where it divides the urethra for half an inch or so, and is then drawn out, cutting upwards a little in the act, but so as to avoid any material division of the bulb. The left index-finger is now removed from the rectum, and following by the groove of the staff, slowly passes through the neck of the bladder as the staff is withdrawn, when exploration is made, as described above. A moderate division of the bulb when made in the middle line is not to be feared as a cause of hæmorrhage, while an incision involving the side of the bulb, and nearer to the entry of its artery, is more prone to bleed freely. Hence some have preferred another mode of incision in order to avoid it—namely, one of crescentic form, with the convexity upwards, just above the anus; the dissection to be carried transversely to the apex of the prostate, and opening the urethra there, as before mentioned.

Since the case of exploration which I performed in November, 1880, where I discovered and removed the tumour presented (together with the patient) at the Royal Medical and Chirurgical Society on the 11th of April last, I have made digital exploration of the bladder, in the manner above described, in four other cases. I append a brief note of each here, by way of showing its nature and the results, and I venture to think that they will be regarded as fully warranting a resort to the operation, and that the effect in three instances was a manifest gain to the patient.

CASE 1.—A gentleman, aged forty-two; micturition frequent; florid blood passed almost daily for nearly two years; occasional attacks of cystitis with phosphatic deposits. On June 27th, 1881, Mr. Clover gave ether. Having performed the operation described, I could detect neither calculous matter nor any structural change. A tube was tied in for five days, by which all the urine passed, and it was now free from bloody mucus. The tube was removed, and the wound soon healed. He was greatly improved, and is now living a very active life. He occasionally passes blood, and has some frequency of micturition, but is better than for years before.

CASE 2.—A gentleman, aged fifty-four. I cut him for rather a large uric-acid stone in 1880; he made a fair recovery, but had cystitis afterwards, pasing phosphatic concretions, and often blood; a condition resembling that which sometimes follows lithotrity. On June 16th, 1881, Mr. Clover gave ether. I explored for impacted calculus, &c., but could detect no deviation whatever from the normal condition. The tube was tied in four days, after which the wound rapidly healed, and no improvement could be noted. He is still under observation, and on the whole slowly improving.

CASE 3.—A gentleman, aged sixty-eight. Has passed all urine for several months by catheter, and for the greater part of the time much blood and mucus have been mixed with it. He has also been diabetic for a considerable period. Before operating I had the advantage of Sir William Jenner's opinion about the case.—Feb. 10th, 1882: In exploring I found only a small flake of phosphatic matter, apparently adhering to the surface of the bladder, and nothing else abnormal. The tube was tied in eight days, after which the wound healed rapidly. He never had a trace of blood from this time, and the urine has been almost free from mucus; he requires the catheter precisely as before. On April 15th he returned to the country very ill and feeble with diabetes.

CASE 4.—A gentleman, aged sixty. I formerly crushed a phosphatic calculus; he had long passed all urine by catheter with great pain and frequency, with much cystitis and recurring phosphatic deposits. His suffering was so severe that he begged the bladder might be opened.—March 20th, 1882: I made the exploration in presence of Dr. Chepmell, Dr. Barton Smith, and Mr. Hayward, and could not detect any abnormal condition. The tube was tied in for seven days, after which the wound rapidly healed. The patient uses the catheter now only about every three or four hours, the character of the urine is much improved; he is actively occupied, the relief to suffering being very considerable, and he is himself more than satisfied with the result of the operation.

Wimpole-street, W.

SNAKE POISON, TREATED SUCCESSFULLY WITH LIQUOR POTASSÆ,

WITH REMARKS,

BY RETIRED DEPUTY SURG.-GEN. JOHN SHORTT, M.D., M.R.C.P.L., F.L.S., &c. &c., Madras Army.

THE two following cases of snake-bite are of special interest just now, more particularly as Dr. J. B. de Lacerda, of Rio Janeiro, states that he has found the permanganate of potash to destroy snake poison completely. Allow me to state there is nothing new in this. I long ago, in 1869 and '70, stated that an antidote was to be found in the liquor potassæ; this fact I publicly demonstrated in the most satisfactory manner to all the medical officers resident in Madras, at the time numbering over twenty, inclusive of Inspector-General Mackenzie, C.B., first at my house and then at the Medical College, Madras, before the professors and a large number of medical officers and students, how completely liquor potassæ destroys cobra poison to the satisfaction of everyone present on both occasions. I here give a paragraph of a letter I received from the secretary to the Inspector-General (the present Surgeon-General with the Government of Madras) which runs as follows:—"3. Should further evidence substantiate your views as to the influence of potash in neutralising the poison *within*, as you have demonstrated it does *without*, the body, you will have made a most valuable addition to the common stock of professional knowledge.—(Signed) R. W. CORNISH, Surgeon, Secretary to Inspector-General I.M.D., Fort St. George, Feb. 21st, 1870."

For the "further evidence" called for in this letter I would refer readers to the *Madras Monthly Journal of Medical Science*, vol. v., January to June, 1872, p. 361, where will be found my remarks on the cure of snake poison I treated with potash successfully. There were three cases; the first was published in THE LANCET, vol. i., 1870, p. 540; the second case in the *Madras Monthly Journal of Medical Science*, vol. i., January to June, 1870, p. 456; and the third case in vol. xiv. of the same journal, July to December, 1871, p. 102. I would also draw attention to Druitt's "Surgeon's Vade Mecum," eleventh edit., pp. 139 to 142, where it will be seen I demonstrated by actual experiments the power of liquor potassæ to destroy snake poison.

I will now give the notes of the following two cases:—

CASE 1. A policeman was brought to my house at Ercand at 7 P.M. on the evening of the 4th August, 1880, with the report that as he was returning from his beat he was bitten in the foot by a snake, which he produced; and on inspection I found the same to be a young *Daboia elegans*, or Russell's viper, measuring thirteen inches in length and about the thickness of a man's finger. The patient was in great agony, and was pressing hard with his hand at the groin, where, he said, there was a violent smarting pain. I placed a ligature immediately above the wound, and having no medicines by me, I gave him a stiff glass of brandy, and sent him on at once to the Local Fund Dispensary with a note to the civil apothecary, Mr. T. S. Browne, for further treatment.

"August 4th, 1880.—Madurawoothu (police constable), age twenty-five years, bitten by a snake a little below outer ankle of right foot about three hours previous to admission. Two small punctured wounds to be seen; foot much swollen, and very painful; complains of much giddiness; pulse quick.

Wounds scarified and allowed to bleed freely. Ordered a mixture composed of three drachms of liq. potassæ, nine ounces of brandy, and four ounces and a half of water; an ounce and a half to be taken every hour. A lotion, composed of three ounces of liq. potassæ and ten ounces of warm water, to be applied to the wound constantly.—5th: Foot more swollen, but less painful; poultices and hot fomentations.—6th: Swelling disappearing; very little pain; wounds healing; tongue rather foul; bowels constipated. Continue poultice; to have a blue pill at night, followed by three ounces of senna mixture.—8th: Discharged well."

CASE 2. This patient was a grass-cutter on my establishment. She was carried to my house on the morning of March 26th, 1881, at about 8 A.M., when she appeared faint and somewhat dull, and was said to have been bitten by a green snake about 2 ft. in length, whilst out cutting grass. She caught hold of a handful of grass among some stones on the hillside, and with it she found she had grasped a snake, which turned round and bit her between the first and second joints on the dorsum of the left forefinger. The patient stated that when the snake bit her she immediately felt a violent burning and smarting pain in the part, soon followed by a feeling of numbness along the arm; and in about half an hour she felt faint, and became insensible. The snake happened to be a *Trimesurus Anamallensis*, or green viper. I immediately placed a ligature above the wound, and with a penknife opened out the two bleeding punctures into one, so as to encourage bleeding; I then gave her a strong glass of brandy-and-water, and sent her on to the dispensary for further treatment.

"N——, a Chinese, aged twenty-five, a female, was admitted on March 21st, 1881, with two punctured wounds on the forefinger of the left hand, bleeding slightly; said to have been caused by the bite of a snake. Finger and hand are much swollen and very painful. But for a feeling of giddiness the patient seems otherwise well. She was seen within half an hour of the bite, when a ligature was applied about the wrist, while the part was scarified and bleeding encouraged by placing the hand in hot water, to which one to six ounces of the solution of potash was added, and the following prescribed: one drachm of the liquor potassæ, one ounce and a half of brandy, to four ounces and a half of water; two ounces every four hours.—22nd: The whole of the hand and forearm as far as the elbow was very much swollen, hot, and painful. The patient was feverish; tongue coated; bowels costive; pulse quick and full. To have a blue pill, followed by a compound jalap powder in the morning. Poultice to the hand and forearm.—23rd: Swelling has extended up the arm to the shoulder; glands of the armpit enlarged and tender; fever continues (to which she is subject). Continue poultice. To have an ounce of saline mixture every four hours.—24th: Swelling abating; no fever.—26th: Discharged well."

In the course of a large series of experiments with snake poison, I discovered that the liquor potassæ neutralised the poison completely and rendered it inert. Having thus satisfied myself of this fact, and after further experiments I found that potash combined with brandy as a diffusible stimulant roused the nervous system, excited the circulation, and thus carried the potash into it as rapidly as possible, and enabled it to overtake and neutralise the poison in the blood. Being satisfied on this point, when the snake-bitten cases came for treatment I, in the most careful manner, put into practice the plan I had found so successful in my experiments on these patients with perfect success. Of the five cases thus treated two were the bites of cobras, two that of Russell's viper, and the other one that of a green viper. It is difficult to get a succession of cases of snake-bite for treatment, but the secret of success by this method consists in bringing the patient's system rapidly under the influence of the potash and brandy, or, in other words, to make the patient drunk as speedily as possible, and maintain this effect for some time after, till the system becomes thoroughly saturated with the potash, and the whole of the secretions become alkaline. I have tested the permanganate of potash also, and have found that it likewise renders snake poison inert, but as it is the potash alone that possesses the power of neutralising snake poison, I do not see the advantage of using the compound known as the permanganate of potash.

I annex in support of the above statements a letter from Surgeon Major E. F. Brockman, F.R.C.S., Ophthalmic Surgeon to the General Hospital, and Professor of Ophthalmic Surgery and Physiology in the Madras Medical College, which appeared in the *Madras Mail* of the 9th Dec. 1881.

"*To the Editor of the Madras Mail.*

"SIR,—In your issue of the 6th inst., I notice that Dr Shortt has mentioned my name in connexion with a case of snake-bite, in which he carried out his method of treatment at the General Hospital, in May, 1871. As he has refrained from mentioning any particulars, I think it may interest some of your readers were I to furnish a few items in reference to it. As Dr. Shortt had on numerous occasions afforded me the privilege of witnessing and assisting him in his experiments with the poison of the cobra, I was very desirous of having the method (which I may say he discovered) put to a practical test; and, with the consent of Dr. Paul, he was invited to undertake the conduct of the case. The sufferer was a native, aged forty years, who was bitten on the back of the foot on the evening of May 16th, 1871. He was admitted into the General Hospital on the following morning, with the characteristic symptoms of snake-bite—viz., great depression, eyes dull and listless, with drooping lids and inactive pupils; skin cold; pulse very rapid and feeble; reluctance to converse, or reply to questions which were addressed to him. The lips were swollen, and a sanious fluid was oozing from his mouth in considerable quantities. On closer examination it was found that the bloody fluid proceeded from a deeper source, and most probably from his stomach. The same kind of fluid escaped as well from the nostrils, and it soon became evident that all the mucous surfaces of the body were discharging the same character of liquid. On the arrival of Dr. Shortt, the liquor potassæ, in combination with brandy, was administered internally, and the patient was placed in a bath, in which the same medicinal ingredient was largely mixed. Symptoms of jaundice appeared, and the patient lay in a precarious state until the evening of May 18th, when the severity of the symptoms began to diminish, and he made a steady, but slow, recovery. Nothing was employed in this case other than the liquor potassæ, small quantities of brandy, and a nourishing diet.

"It is, of course, impossible to say what kind of snake inflicted the wound upon the foot; but the symptoms too clearly pointed to the poison of the viper class of snakes. There is no doubt, however, that the patient would have succumbed to the poison had not some such plan as that above described been put in force.

"In my opinion, all praise is due to Dr. Shortt for having discovered in the liq. potassæ a remedy which may be regarded as an antidote to snake poison. While others have laboured in the same field of research without arriving at any certain facts, but have been commended in various ways, hardly any notice has been taken of the untiring diligence with which Dr. Shortt has, for a large portion of his life-time, worked at the same subject, even at the risk of his own life. Does he not merit some reward?

"Yours faithfully,

E. F. DRAKE-BROCKMAN, F.R.C.S."

The Retreat, Ereand, Dec. 12th, 1881.

A SUCCESSFUL CASE OF GASTROSTOMY FOR CANCER OF THE ŒSOPHAGUS.

WITH REMARKS ON THE VALUE OF A SMALL OPENING INTO THE STOMACH.[1]

BY THOMAS BRYANT, F.R.C.S.,

SENIOR SURGEON TO, AND LECTURER ON SURGERY AT, GUY'S HOSPITAL.

(*Reported by* Mr. L. E. W. STEPHENS.)

MR. A. B. H——, aged sixty-five, a well-to-do farmer in the south of England, had enjoyed good health up to the winter of 1879–80, when he occasionally suffered from fainting fits and dyspepsia, the latter being his chief trouble. He remained in this condition up to January, 1881, when he came under the care of Mr. Palmer Stephens of Emsworth, Hants, who found him suffering from occasional syncope, dyspepsia, and gradually increasing debility. Flatulence had been complained of for some months, and a sense of constriction round the chest, with nausea, had also been noticed. During

[1] Read at the Medical Society of London, April 3rd, 1882.

the spring of 1881 he was seen by a London physician, who diagnosed dyspepsia, for which he was treated without success. No marked signs of œsophageal trouble had, however, as yet presented themselves, since he could eat and drink without pain, and had only some occasional regurgitation and sickness after food. In November, 1881, when all his symptoms had become worse, and he had become much emaciated and weak, he was seen by Dr. Wilks, who, suspecting stricture of the œsophagus, advised him to see Mr. Bryant. This he did, when, after an examination of the part with bougies, a stricture was detected at the lower end of the œsophagus, through which no instrument could be passed. At this time, however, the patient could at times swallow meat finely minced and the softer parts of an ordinary diet, although all food other than milk regurgitated. Under these circumstances gastrostomy was determined on as the only means of relieving his condition and prolonging life.

Dec. 3rd, 1881, 3 P.M.: Mr. Bryant performed the following operation, assisted by Messrs. Tom Bird, Henry Morris, and Palmer Stephens:—The bichloride of methylene was used as an anæsthetic, and the carbolic spray was employed, an incision, three inches long, was made about half an inch below the margin of the left ribs and parallel with them; the skin and muscles were consecutively divided down to the peritoneum; all bleeding vessels were twisted as they were divided, and all capillary oozing was arrested by a wet sponge. The peritoneum was then divided, and the stomach, which presented itself, was at once seized, care being observed at this time to keep the wound well sponged to guard against anything passing into the peritoneal cavity. The stomach was brought well forward through the wound by means of two loops of fine carbolised silk, which were inserted through the peritoneal covering of the stomach about one-third of an inch apart. The ends of these loops were left long, for a purpose to be described later on. The stomach was next carefully fastened by a series of interrupted silk sutures to the margins of the wound, the sutures including the parietal peritoneum with the muscles on the one hand, and the peritoneal coat of the stomach on the other. The stomach at this stage of the operation was not opened. The wound was dressed with a mixture of one part of terebene and three of olive oil, a half-grain morphia suppository was given, and small nutrient enemata of four ounces of milk and beef-tea, with ten drops of laudanum, were ordered to be given every four hours.—Evening of operation, 7 P.M.: Temperature 98·2°; pulse 76. No sickness or pain. An enema of beef-tea, four ounces, with brandy, two drachms, was given, and at 10 P.M. an injection of egg and milk, four ounces, with brandy, two drachms.—4th (second day): Passed a good night. Temperature 99·4°; pulse 84. Some nausea, but no actual vomiting.—Four-ounce enemata of beef-tea and of milk and eggs were given every three hours. 1.30 P.M.: Wound dressed, looked healthy, literally no discharge. The tincture of opium, ten minims, given with each enema; ordered to be given five minims and ten minims alternately during the night. 2 P.M.: Bladder relieved by catheterisation. 7 P.M.: Bowels opened; slight excitement of patient in consequence.—5th (third day): Bladder acts naturally; nutrient enemata given as yesterday. 8.30 P.M.: Mr. Stephens writes as follows:—"After a little milk had been taken by the mouth there was slight retching, but no vomiting. When dressing the wound I noticed that the piece of fat, which gave some little trouble during the operation, had protruded into the wound; this possibly occurred after a fit of coughing in the morning; otherwise everything looked healthy. Pulse slightly intermittent. —6th (fourth day): Table of diet same as yesterday, that is, alternate injections of four ounces of beef-tea and milk every three hours, all of which were retained. Much weaker; wound healthy; pulse 100; temperature 99°. Case looks very bad indeed." Two ounces of brandy given in enemata; retained. Two ounces of warm milk given in teaspoonfuls by the mouth. Bowels opened at 6.30 A.M. and 7 P.M. Motions very offensive.—7th (fifth day): Is decidedly better to-day. Temperature 99·6°; pulse 94. Table of diet same as yesterday, except that at 7 P.M. the usual enema of beef-tea was replaced by a nutrient suppository. All the enemata were retained. In the evening Mr. Stephens writes: "Dressed at mid-day; wound perfectly healthy; no further protrusion of fat into the wound; the piece noted on Dec. 5th appears to be smaller." Bowels opened at 9.45 P.M.—8th (sixth day): Temperature 100°; pulse 96. The nutrient enemata and suppositories are given alternately every three hours.

Mr. Stephens reported "that the patient was still very weak; pulse feeble." When I saw him this morning his face was flushed; pulse quick; temperature slightly raised; voice altered in character, but this passed off towards evening. The suppositories act well and give comfort.—9th (seventh day): Bowels opened three times. Enemata and suppositories used as usual, and half a pint of milk was allowed to be taken by the mouth during the twenty-four hours.—10th (eighth day): At 5 P.M. I opened the stomach by making a puncture through its coats with a tenotomy knife, one-eighth of an inch wide, having gently elevated the exposed surface of the viscus by means of the loops of silk introduced on the day of the operation through its peritoneal covering. All the sutures were also removed. A tube the size of a No. 9 catheter was then introduced through the artificial opening into the stomach, and the patient fed with a few ounces of warm milk, none of which escaped on the removal of the tube.—11th (ninth day): Passed a good night, and feels comfortable. Temperature 98·4°; pulse 108. He was fed during the day every three hours by nutrient enemata, and at 3 P.M. and 9 P.M. four ounces of milk were introduced through the artificial opening into the stomach. All the enemata were retained; not a drop of fluid escaped from the opening in the stomach. Bowels opened twice during the day.—12th (tenth day): Slept well. Says he is better. Temperature 99·6°; pulse 98. He was fed as yesterday. Bowels opened twice in the morning and once in the evening.—13th (eleventh day): Sleeps well. Temperature 98·6°; pulse 92. He was fed by the stomach three times to-day, and at other intervals had his nutrient enemata or suppositories. Brandy increased to four ounces in the twenty-four hours. Bowels opened twice in the morning and once in the evening; motions healthier. 14th (twelfth day): Doing well in all ways. Temperature 98·4°; pulse 100. To-day the food that was introduced into the stomach was thickened beef-tea; it was well retained. In other respects no change in the patient. Bowels opened once morning and evening.—15th (thirteenth day): Doing well in all respects. Bowels opened once morning and evening. Mr. Stephens writes: "The nutrient suppositories appear to me to be of immense benefit; there is much less flatus; the motions have become solid."—19th (seventeenth day): Patient has been going on steadily with the same line of treatment. Mr. Stephens writes: "The wound is quite healthy and closing in very rapidly. There is no regurgitation or oozing from the opening in the stomach, which is simply perfect. The motions are now solid, but very offensive. The dryness of the mouth is giving great discomfort. Pulse feeble and intermittent. One teaspoonful of brandy with one egg and half a pint of milk given three times a day by the stomach."—20th (eighteenth day): Table of diet the same as yesterday. Bowels opened morning and evening. All the enemata retained.—25th (twenty-third day: Mr. Stephens reports: "There is but little variation in either pulse or temperature. Everything is satisfactory. The wound is quite healthy, and the piece of fat has almost disappeared. We have been compelled to replace the stem of the feeding apparatus by a piece of a No. 10 gum-elastic catheter; the original piece was continually getting blocked, and made the feeding very tedious. Our patient being very impatient about getting up, on the 23rd he was lifted on to a sofa, and again yesterday, but was so fatigued as to be perfectly helpless."

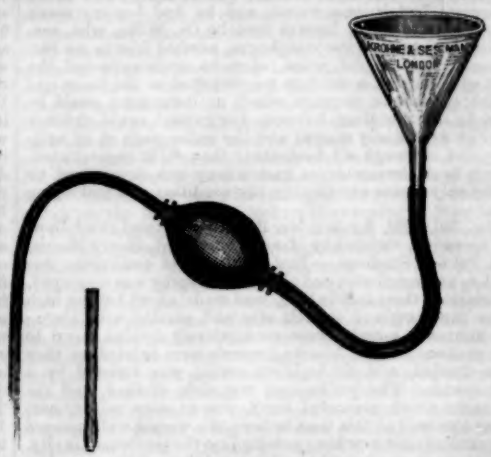
January 2nd, 1882.—"Our patient remains in about the same condition as I reported on Dec. 25th. He has not lost ground during the last few days, but has certainly not gained strength; in every other respect matters go on well. We feed him by the stomach four times daily—viz., 9 A.M.: Milk, one egg, and two drachms of brandy. 3 P.M.: Beef-tea with finely minced pancreas. 9 P.M.: Milk, egg, and brandy. 3 A.M.: Milk, egg, and brandy, with four suppositories. Bowels act well; urine healthy; temperature about 98·4° daily; pulse 90 to 110 during the week. No flushing of the face since beer was withdrawn; brandy limited to twelve drachms daily for similar reasons. The dryness of the mouth gives a good deal of trouble. We have tried all sorts of remedies, each relieves for a short time and then fails.—9th (thirty-sixth day): Mr. H—— is certainly now gaining strength. Since my last note he has sat up daily and got into the opposite room in a wheeled chair. He is now taking two ounces of brandy in the twenty-four

hours, and the dryness of the mouth is much relieved. Our worst feature now is his bad temper."—25th: Mr. H—— is now able to come downstairs, but the effort of walking up again causes great fatigue and slight swelling of the legs. The wound is nearly healed and looks dry. The orifice of the artificial opening into the stomach appears as a dimple. There is no difficulty in introducing the tube for feeding purposes. He takes four meals daily very well. Bowels act well. Urine healthy. Bad temper is his only drawback."

March 20th.—Three months and a half after the operation Mr. Stephens reports: "After the operation Mr. H—— steadily gained weight until about Feb. 18th, since which time he has been, I fear, going down hill. There is now scarcely a trace of the wound, only the artificial orifice. He is fed regularly every six hours by the tube in his stomach, but takes some new milk daily by the mouth, and milk with coffee or tea occasionally. He is now steadily, but none the less surely, losing ground, and is unable to take as much food as formerly by the stomach."

To-day (April 2nd) he reports: "Mr. H—— is still getting weaker, though very gradually. Finds more difficulty in taking liquid by the mouth, and experiences pain in the right shoulder-joint at each gulp. The stomach retains food well. Bowels more regular, and motions healthier than they have been for many months. The nutrient suppositories are still of immense value. He remains downstairs daily for eight or nine hours, and gets about in a Bath chair.—May 2nd: At the present time he is as last reported.

Remarks.—This case not only well illustrates the advantages which are to be gained by the operation of gastrostomy as a remedial agent for cancer of the œsophagus, even in a man aged sixty-five, but it enables me again to draw the attention of surgeons to two points in the operation which I deem important—namely, the propriety of adopting, whenever possible, the judicious practice suggested and first carried out by my colleague, Mr. Howse, of dividing the operation into two stages; and secondly, the advisability of making a very small opening into the stomach for feeding purposes. The wisdom of dividing the operation of gastrostomy into two stages is supported in my own experience by the fact that this is the third case in which the practice was followed, and in all with success, so far as the operation was concerned, one patient having survived the operation sixty days, and dying from visceral cancer. The second being now alive and well twenty months after the operation, with every prospect of living her natural life, and the third or present patient having survived the operation five months, and lived with comparative comfort, and without pain. The first step of the operation in all these cases consisted of an oblique incision three inches or more long, made about half or three-quarters of an inch parallel to and below the margin of the left ribs; the division of the soft parts down to but not through the peritoneum; the arrest of all bleeding vessels by torsion, and of oozing with a hot sponge; the division of the peritoneum, finding the stomach and the careful stitching of its peritoneal covering to the divided edges of the parietal peritoneum and the margin of the wound all round with fine silk sutures. The second step was really the completion of the operation, or the opening of the stomach; and in each of these cases it was carried out in the same way, on the fifth, sixth, or seventh day, after the first step, by simply puncturing the centre of the exposed area of the stomach with a tenotomy knife; this step having been in each case much facilitated by the introduction of a silk loop through the peritoneal coat of the stomach, in the preliminary stage of the operation, and the elevation of the walls of the stomach, by means of the loop at the time of puncture. By this small puncture the surgeon gains all he can desire; for, the walls of the stomach being elastic, the small opening readily yields to the slightest pressure, so that a tube the size of a No. 10 catheter can readily be introduced into the stomach for feeding purposes; and, by virtue of this same elasticity, when the tube is withdrawn, the artificial orifice closes, and as a result there is little or no escape of the contents of the stomach to saturate the patient's linen, or to irritate the soft parts around the artificial orifice, and thus add to the patient's discomfort. In the first two of these three cases there was no escape of the stomach's contents under any circumstances; indeed, in the second case, the seat of operation is now, twenty months after the operation, permanently dry; and in the present case there is escape only when much liquid has been injected into the stomach, but never with milk or thick food. At any rate, of this I am sure, that as the patient gains every advantage the surgeon can desire by means of this small one-eighth of an inch puncture, no larger one should be made; and that if we cannot always secure after the operation a total prevention of regurgitation of food, with all its evil irritating influences on the soft tissues around, we



can reduce it to a minimum. The apparatus depicted above, and which I use for feeding purposes, is a simple one. It consists of a small Higginson's syringe, so constructed as to be readily cleaned in the centre, with a piece of catheter or small tube at one end to be introduced into the stomach and a large one in the other connected with a glass funnel as a receptacle for the food. With this, thick food, such as peptonised meat, &c., can readily be thrown into the stomach. The instrument is made for me by Messrs. Krohne and Sesemann, of Duke-street, Manchester-square.

By way of conclusion let me summarise what I wrote a year ago when relating a case of gastrostomy for cicatricial stricture at a sister Society (vide THE LANCET, April 9th, 1881). That gastrostomy for cancerous stricture of the œsophagus should be undertaken as soon as there is a practical difficulty experienced in the deglutition of solid food, life being prolonged by such a practice since the progress of the cancerous disease is retarded and much misery is saved. That the operation should always be divided into two steps, as suggested by Mr. Howse, and that the second step should be performed on the fifth, sixth, or seventh day after the first, according to the repair in the seat of operation and urgency of the case. That the opening into the stomach should not be larger than that made by an ordinary tenotomy knife, or about one-eighth of an inch, since such an opening is elastic enough, on the one hand, to admit a tube for feeding purposes, through which thick food can be injected with the feeding apparatus I employ, and on the other to close after the removal of the feeding tube, so as to prevent regurgitation of the stomach's contents with its attendant evils. I should like to add that I found in the treatment of this case Slinger's nutrient suppositories, to be had from Slinger and Son of York, or of Messrs. Newbery of Newgate-street, of the greatest value.

SOUTH LONDON SCHOOL OF PHARMACY.—The prizes awarded at the examinations held on the 4th, 5th, 13th, and 15th April were presented to the following successful competitors on the 25th ult.:—Medal: Chemistry, Mr. Forster. Certificate: Chemistry, Mr. Woollons. Medal: Botany, Mr. Woollons. Certificate: Botany, Mr. Forster. Medal: Materia Medica, Mr. Burton. Certificate: Mater a Medica, Mr. Dillon. Medal: Pharmacy and Practical Dispensing, Mr. Birkbeck. Certificate: Practical Dispensing, Mr. Burton. Extra certificates of merit were awarded to Messrs. Hornby, Roberts, Davies, Heald, Reade, Oldershaw, Brunton, Naylor, Copper, Wright, Tucker, and Taylor.

VACCINATION GRANT.—Dr. John M. Bryan of Northampton has received from the Local Government Board a grant for successful vaccination in his district (fourth time).

ON THE

IDENTITY OF THE ACTION OF IODINE AND IODIDE OF POTASSIUM.

By M. CHARTERIS, M.D.,
PROFESSOR OF THERAPEUTICS IN GLASGOW UNIVERSITY, AND PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

THEORETICAL considerations lead many observers to the conclusion that the action of iodine and iodide of potassium on the system is similar. It is presumed that iodine taken internally is transformed into an iodic albuminate, so circulates in the blood, and is then converted into an alkaline salt and excreted from the system. Experimentally it has been proved that iodine can be liberated from the iodide of potassium when that compound is exposed in an aqueous solution to carbonic acid and protoplasm. The same conditions appear to exist in the tissues—i. e., the lymph glands and muscles,—and it is possible that whatever decomposition may occur in the stomach, the final change, when the iodide is taken internally, and the liberation of the iodine take place there. Other theorists imagine that iodine and iodide of potassium have a totally different action, and that the efficacy of the salt depends in a measure, if not entirely, on alliance with the alkaline base.

The following case bears pertinently on the point at issue—viz., can the phenomena of iodism be observed in the same individual by the administration of both substances?

A woman aged thirty-five, married, and the mother of six children, was admitted four weeks ago into the Glasgow Royal Infirmary suffering from chronic rheumatism. She had been a patient in the hospital ten years previously with an acute attack of rheumatic fever, and as the result of this there was a well-marked double murmur at the apex of the heart. In appearance the patient was dark-haired, dark-eyed, and her skin was of the brunette character. Her temperature was normal. The affection of the heart gave her no uneasiness, and she was accordingly ordered the following mixture: two drachms of iodide of potassium, and six ounces of the infusion of quassia, a tablespoonful to be taken thrice daily; each dose therefore contained ten grains. Half an hour after taking the first dose she complained of a slight itching of the nose and tenderness of the nasal and conjunctival mucous membrane. This was increased by the second dose, and in an hour after taking the third, she stated she had small shot-like elevations, appearing first in the inside of the knees, then spreading over the body. The eruption was most marked in the legs and elbows. She also observed that the feeling was as if she had had "the skin laid bare, and that she was then bathed in salt and water." The soreness was more marked than the itchiness. On examination it was evident her statement was true, for small papules, pale and hard, were seen by the eye, and detected as elevated by the touch. On stopping the medicine it was found they disappeared in from twelve to twenty-four hours. She stated that on a previous occasion, when in the hospital, the same phenomena were observed, and this statement was verified by an examination of the ward journal, when it was found that she had also been ordered iodide of potassium by Dr. McCall Anderson, who then had charge of the wards.

Deeming this case with such marked idiosyncrasy for iodism a suitable one to try if similar results would be produced by the internal use of iodine, I ordered her to have tincture of iodine in five-drop doses thrice daily. The following morning no effect was manifested. I according increased the dose, first to ten, and subsequently to fifteen minims thrice daily, but without any result such as I had anticipated. I naturally came to the conclusion that the first theory mentioned was not proved correct, so far as this case was concerned, and that probably iodism was in part, if not altogether, due to the alliance of the iodine with potassium. It was difficult, however, to reconcile this, on reflection, with the theory which commends itself more naturally to a mature and careful analysis of the phenomena observed, and the nature of the substances given. I resolved therefore to repeat the experiment, but in larger doses. After an interval of two days had elapsed I ordered her to have twenty drops of tincture of iodine at one dose, and that this should be repeated thrice daily. After the third dose symptoms of iodism were manifested. The nose became itchy, the eyes swollen, and she experienced again the same peculiar "salted sensation." On examination the small papules were also seen on the skin, but they were not quite so numerous as when the iodide was given.

ON SACRAL DIMPLE AND ABNORMAL COCCYX.

By ANDREW DUNLOP, M.D.,
CONSULTING PHYSICIAN TO THE JERSEY GENERAL DISPENSARY.

IN 1876 and 1878 I published notes of a peculiar abnormality of the coccyx, and the skin over the lower part of the sacrum, and since that time I have seen a considerable number of cases of the same kind. The first case I saw[1] was in a girl, eight years of age, on whom I found a circular pit or hole over the lower part of the sacrum, or rather over the coccyx, directly in the middle line. It had a direction downwards and forwards, and consisted of a reflexion of the skin entering a more or less circular depression about a quarter of an inch in diameter and a quarter of an inch deep. Not quite a quarter of an inch below its lower border could be felt the pointed extremity of the coccyx, which, instead of having its usual form, curved backwards and forwards. On stretching the skin downwards that portion of it which entered the pit was raised, coming out like the finger of a glove which had been pushed down into its lower part, and a small prominence about the height of the diameter of a pea stood up from the surface, and this little sheath was found to cover and exactly fit the point of the coccyx. Soon afterwards I examined the rest of the family, with the following results:[2]—Boy, aged six, normal. Girl, aged four, depression at the same spot as in her eldest sister; coccyx normal. Girl, aged two, normal. Boy, aged seven months, fairly deep hole (not measured) in the same position as in the others, coccyx less curved forward than usual. In another family I met with the following instances: Boy, aged eight, circular pit about three millimetres in diameter, situated in the middle line at the junction of the folds of the nates; coccyx nearly straight. Boy, aged five, a circular hole at the same spot, admitting the point of a metallic note-book pencil. It passed downwards and forwards. The coccyx was straight. A girl, aged three, very slight depression. Coccyx straight. The cases of this kind that I have seen may be arranged as follows:—

1. Those where the coccyx was bent backwards and sometimes upwards, with a dimple or hole in the skin, at or about the junction of the folds of the nates, the pit was generally from three to five millimetres in diameter, and varied from a mere dimple to a hole about five millimetres deep, and it would sometimes be obliterated by traction on the surrounding skin. The first case I saw was the only one in which I found that the depression could be everted and made to cover the tip of the coccyx.

2. Those where the coccyx was straight, or nearly so, with a dimple or hole, as in the last.

3. Those where there was a pit in the skin, with the coccyx normal in form.

4. Those where the coccyx was straight or bent backwards, without any dimple or hole in the skin.

In three instances I have found some form of this abnormality present in several members of the same family. At the meeting of the British Association in 1878, Mr. Lawson Tait read a "Note on the Occurrence of a Sacral Dimple and its Possible Significance." In this paper he described the pit in the skin over the sacrum, but he does not seem to have ever seen it associated with an abnormal form of coccyx. He found that this dimple was well marked in 23 per cent. of the patients he examined at the Hospital for Women at Birmingham, and that it was fairly well marked in 55 per cent. He concluded that it was a cicatrix, and suggested that it was the hereditary cicatrix of the spina bifida by which the human tail had been lost. A year or two ago some observations on the sacral dimple, and on the peculiar arrangement of the hair often observed over the sacrum, were published at Brunswick by, I believe, Dr. Hirtl, but I have not been able to obtain a copy of the work, and I have not had an opportunity of searching for it myself. The cases of congenital sacral fistula lately brought before the Société de Chirurgie of Paris by M. Terillon are

[1] Nature, vol. xiv., p. 450. [2] Ibid., vol. xix., p. 94.

interesting in connexion with the appearances I have described, especially the fact that the walls of these fistulæ were found to have a structure similar to that of the skin.

The frequent occurrence of this abnormality, with the dimple always situated at or about the same spot, would seem to give some grounds for supposing it to be the remains of some different condition or formation of the parts.

I hope some one with more time and opportunity than I have may be induced to take up this subject, and try to work it out, for it appears to me to deserve the attention of anatomists and naturalists.

ON A CASE OF

LEPROSY TREATED BY TINCTURE OF EUCALYPTUS.

BY ED. SINCLAIR STEVENSON, M.R.C.S., L.R.C.P.

IN publishing the following notes, I think that an apology is required for relating a solitary case. Unfortunately, although having seen and treated several cases previous to it, I never had the chance of giving a further trial to a treatment which was in this instance perfectly successful. Others may have that opportunity, and were they to succeed I shall feel that I have gained the indulgence which I claim.

Mrs. ——, aged forty-eight, mother of eight children, has always been a healthy woman. Her mother died old, and her father, aged ninety years, is still alive. In her husband's family there is leprosy. A sister died of it many years ago, one nephew succumbed to it four years previous to this, and a brother of his lost suddenly and entirely all feeling in his right foot, as far up as the ankle-joint. The foot is now distorted. There is relationship, however, between the father and mother's families. On November 1st, 1879, the patient consulted me for a small brawny induration situated on the corner of the mouth, near the upper lip; mucous membrane slightly raised. There is another spot on the left cheek, and a larger one between the eyes. These blotches have come on rapidly. Now and then, when the patient is exerting herself, the spots are more visible and give a flushed appearance to the face.

Dec. 1st.—The infiltration at the corner of the mouth has much enlarged, and extends along the upper lip. Two more spots are seen on the forehead; one is visible near the right elbow-joint, above the olecranon, and another on the radial side of the wrist. The maculæ on the face have the appearance of brown moles in colour; those on the arms are lighter, a coffee and milk tint. The induration on the lip and the two superciliary ones are the largest. All of them are slightly raised, and have no feeling in them when pressed, but are itchy. There is an infiltration above the left knee, and one on the calf of the leg. These last present much the appearance of erythema nodosum. The leg and arm feel numbed. The right nostril is swollen. The patient eats and sleeps well, and complains only of loss of power in grasping, and of pains in her left leg and elbow-joint. Ordered arsenic and iodide of potassium and iron and chlorate of potash.—30th: The infiltrations are larger; six or seven new ones are seen on the face. There is a large discoloured patch on the palm of the right hand, and one on the sole of each foot. The ring and little finger of the right hand are contracted, the latter more so than the other. The flexor tendons are tense, and feel as hard cords in the palm. Both fingers are anæsthetic. There is a tubercle situated over the ulnar nerve at the elbow, and the anæsthesia can be traced from it down to the fingers and along the nerve, the course of which is felt distinctly as a hard string. Mrs. —— feels much depressed and anxious; she is losing flesh and has no appetite. She feels giddy when walking, and does not know whether she is standing on her feet or not.

Jan. 10th, 1880.—The spots on the forehead have enlarged and give her the Leontiasis satyriasis expression. She now keeps to her room. For the last fortnight she has taken five-grain doses of quinine dissolved in lime-juice, and given three times a day, and chaulmoogra oil, five drops on sugar twice a day. Towards the end of the month she suffered dreadfully from pains in her legs and feet; pains so violent that rest and sleep were impossible. She is very pale and looks much worn out. The chaulmoogra oil made her sick, and was discontinued. On the 23rd she took half-ounce doses of the tincture of eucalyptus added to her quinine mixture. From the very first dose she felt better; the medicine seemed to act like a charm, the first step towards improvement being the relief from the great pain in her legs and feet.

Feb. 14th.—Mrs. —— looks much better, the tubercles are smaller, and the maculæ paler; the fingers are straighter, and the stains on the legs and arms are certainly smaller; some gone. She continues the mixture.—24th: Improvement still continues; pains have entirely left her, except in the soles of her feet, where there is a feeling of soreness. The dark patch on her right palm and the stains on the soles of her feet have changed from a dark brown to red. Her right little and ring finger are straight; but the flexor tendons are still hard and tense. The tubercle over the ulnar nerve is gone. From the amelioration of symptoms, which dated from the exhibition of the eucalyptus, Mrs. —— finds that she perspires much, from her head and face especially, so much so that it wets the pillow on which her head rests; the hands and feet also freely perspiring; whilst during her illness she complained of the dry and parched feeling of her skin. She is in much better spirits, and is gaining flesh.

March.—Much better; fingers and arm have regained their sensibility. She takes the eucalyptus alone. Chaulmoogra oil is rubbed on the tubercles of the face; and the one on angle of the mouth is peeling off. Large scaly flakes are falling off the soles of her feet.

Nov. 1881.—Improvement has continued. A few faint spots are sometimes seen on her face when heated; these being the only remnants of the disease. She takes occasionally the eucalyptus mixture.

Remarks.—I have no doubt to which drug I am to attribute the recovery of the patient. Quinine, lime-juice, and eucalyptus were given together, but quinine was given long before any improvement began, and the lime-juice was soon left off. As to the origin of the complaint, I could not trace any taint in her immediate family, but she and her husband are cousins, and in his family, as I said before, the disease exists. Mr. Hutchinson in his able paper is inclined to trace the origin of leprosy to fish-eating. The inhabitants of this district do not eat fresh fish, not that they dislike the diet, but because that kind of food is scarce. On the other hand, dried and salt fish is much used, especially by the coloured population; but vegetables are very scarce, some families going through the whole year without them; rice and meat, frequently salted, form the staple of their diet. The supposition that leprosy may arise from want of leguminous food, as scurvy does, may be as likely as that of the fish hypothesis.

Droogo Vley, Capetown.

NOTES AND REMARKS ON A CASE OF

CIRRHOSIS OF THE LIVER, IN WHICH PARACENTESIS ABDOMINIS WAS PERFORMED TWELVE TIMES; RECOVERY.

BY R. A. D. LITHGOW, LL.D., M.R.C.P.ED., &C.

IN his admirable "Theory and Practice of Medicine," my old friend and teacher, Dr. F. T. Roberts, thus refers to the early and repeated performance of paracentesis abdominis in developed cases of hepatic cirrhosis: "I cannot refrain from insisting upon the importance of having recourse to the early and repeated removal of fluid by paracentesis in cases of ascites associated with cirrhosis"; and it would be an easy matter to quote a multitude of authorities in order to show that this opinion now meets with almost general acceptance. The interesting case recorded by Dr. Courtenay in THE LANCET during November last has reminded me of an analogous but still more striking one which occurred in my own practice in the country some time before my removal to London; and as it affords several points of unusual interest, I hope the following record will be deemed worthy of preservation. Unfortunately the notes I have retained are not so complete as I could wish, but the main facts of the case are as follows.

J. N. N——, a retired farmer, in good circumstances,

aged between fifty and sixty, of full habit and lymphatic temperament, had for many years daily consumed a large quantity of alcohol, principally whisky and sherry; although not perhaps a drunkard in the usual acceptation of the term, he was nevertheless a deliberate and persistent drinker of ardent spirits in considerable quantities from day to day. His general health had hitherto been fairly good, and with the exception of occasional "bilious attacks," there was seldom anything the matter with him.

On November 1st, 1877, previous to which the patient had been suffering from dyspepsia, associated with symptoms of gastro-enteric catarrh, he was seized with violent sickness, pain in the region of the liver—evidently the result of peri-hepatitis,—and jaundice. Effervescing salines and podophyllin pills were ordered, also the local application of poultices and fomentations, and these gave him temporary relief, although the jaundice persisted, and there were physical signs of hepatic enlargement. On November 8th, I called in my friend Dr. T. J. Walker of Peterborough in consultation, and we concurred in regarding the case as one of incipient cirrhosis of the liver. Appropriate treatment by medicines and regimen was as far as possible adopted and enforced until the beginning of May, 1878; but in the meantime the chronic interstitial inflammation progressed, with accompanying symptoms of portal obstruction, and ultimately ascites with general anasarca. I need not stay to describe the general symptoms of sallow complexion, deeply-coloured conjunctivæ, harsh, dry skin, muscular flabbiness, &c., which usually characterise such cases; nor is it necessary that I should dwell upon the combined and complicated results of contracted liver, impeded portal circulation, increased ascitic distension of abdominal wall, with enlargement of superficial abdominal veins, œdema of skin, dyspnœa, dropsy of scrotum, thighs, and legs, and the other well-known characteristics of hepatic cirrhosis; suffice it to say that the patient presented a typical case of cirrhosis of the liver, and he had become so cumbrous and helpless—the breathing becoming daily more difficult—that the question of tapping could not be much further delayed. Accordingly, as a preliminary, his legs were freely scarified on the 7th, and again on the 9th of December, 1877; and by these means his general condition was considerably relieved. The fluid, however, increased rapidly, and paracentesis abdominis was for the first time performed on December 24th, 1877. He was again tapped on January 16th, 1878, February 1st, 15th, and 27th, as much time as possible having been allowed to elapse between each operation. During the month of February he was ordered a mixture containing balsam of copaiba, and afterwards of oil of santal, but these producing sickness, they were discontinued. Paracentesis was again performed on March 12th, 1878; also on March 25th, April 9th, April 20th, May 2nd, May 16th, and, for the twelfth time, on May 30th, 1878. I am almost positive that the patient was tapped thirteen times, but as I find no note to this effect I think it best to adhere only to undoubted facts. On May 2nd, 1878, the patient was ordered the following mixture, which he continued to take almost up to the time of his recovery:—Half a drachm of iodide of potassium, one drachm of the tincture of digitalis, half a drachm of the tincture of capsicum, three drachms of simple syrup, to six ounces of water; one-sixth part to be taken every four hours. From the beginning of June, 1878—almost immediately after his being tapped for the twelfth (thirteenth?) time—the patient showed symptoms of gradual amendment, and on the 28th August, 1878, he was so far recovered as to be able to go to Brighton, from which he returned, almost quite well, in a few weeks.

Remarks.—The symptoms were at one time complicated by an attack of concurrent subacute bronchitis, which, fortunately, yielded to appropriate treatment. As the patient persisted in having some stimulant, especially during his convalescence, he was ordered a pint bottle of champagne daily. During the progress of the case the diet, for the most part, consisted of milk and beef-tea, given systematically, a few teaspoonfuls of brandy being occasionally, but as seldom as possible, administered in milk. The kidneys acted well throughout, and the patient suffered little inconvenience from the tappings which were performed as he lay upon the edge of the bed.

January, 1882: I have just heard that, the patient having resumed his intemperate habits, active mischief has once more developed itself in the liver, after the lapse of nearly three years and a half, during which he enjoyed fair health.

Cadogan-place, S.W.

RUPTURE OF THE HEPATIC DUCT.

By JOHN FREELAND, M.R.C.S.,
GOVERNMENT MEDICAL OFFICER, ANTIGUA, WEST INDIES.

MARIA J——, a black, aged sixty-five, who has been for many years troubled with intermittent fever, followed by a regular train of symptoms commencing with vomiting, colicky pains, and tenderness of the abdomen, and ending with jaundice more or less severe, applied to me during one of these attacks, stating that, in addition to her generally distressing symptoms, she was now seized with violent and excruciating pain in the stomach and chest, and that she could retain nothing whatever—water, nourishment, or medicines being immediately rejected with greatly increased suffering.

On examination, I found her skin hot and dry, pulse hurried, abdomen fuller than natural, and in some parts painful on pressure. She says she has been taking the medicines I generally prescribed during these seizures, but has not obtained the relief from them she usually did on former occasions, and was quite sure, from the pain and excessive prostration she now felt, that there was some other complaint added to her old disease. I immediately prescribed fifteen drops of tincture of opium with a little sulphuric ether, and applied a large warm linseed poultice over the stomach and upper part of the abdomen. This seemed to have a very good effect, for the pain was completely subdued after a second dose, and the tenderness of the abdomen, which was so evident at the time of my first examination, was now almost entirely gone; the warmth of skin, although somewhat subdued, continued, however; and, as there was now a feeling of headache and nausea, which prevented my patient from expressing herself as much relieved as I expected she would have been after having suffered so intensely some hours before, I ordered a mixture of carbonate of soda and nux vomica in small doses, and desired her to report at once in case the pain should return. During the next night she was suddenly seized again with acute pain, but was as readily and easily relieved by the opiate, ether, and poultice, as in the previous instance. Her relief, however, was of short duration, for the pain soon returned with increased severity, and was now accompanied with a somewhat tympanitic and extremely tender abdomen. I at once ordered pills of calomel and opium to be administered every second hour, and the poultice to be continued with the addition of spirit of turpentine freely sprinkled over it. On my next visit in about six hours afterwards, I found the extremities cold, pulse 120 and small, and the body generally covered with a clammy sweat; the pain in the abdomen had ceased, but the vomiting returned at intervals, with great depression, until she died in about eight hours afterwards.

On examination of the body almost immediately after death, the cavity of the abdomen was found literally filled with blood and bile, the intestines gangrenous in spots, and here and there highly inflamed and congested; the peritoneum one mass of inflammatory deposit and adhesions, the liver and gall-bladder healthy; the latter appeared, however, smaller than natural, and was *entirely empty*, and the spleen, which was of a bright orange tint, was so deeply stained with bile, that even when removed, washed, and broken up in pieces, the bright colour remained, and appeared to be so intimately mixed up in its structure that it was quite impossible to lessen it. The hepatic duct was found lacerated, and the opening in this through which the bile had escaped appeared but recently formed, but the calibre of the duct was much larger, and its length greater than usual, and in some places distended into pouches or bags which contained gall-stones varying in size from a pea to a strawberry. In one of these pouches or bags a most remarkable appearance presented itself in the form of a slit or opening, which was fully occupied and occluded by the point or apex of one of these stones. On displacing and replacing the stone in its position (which was most readily effected by the mere disturbance of the parts), I discovered that the slit which it had occupied was as completely and naturally formed as if it had been the normal state of the duct, the edges being firm, smooth, and slightly everted; and although this stone must at some time or another have caused ulceration by its pressure, and given rise to grave

symptoms, there is no doubt in my mind that it afterwards acted as a plug, and so effectually sealed the aperture in the duct (so long as it remained *in situ*), that no bile escaped into the cavity of the abdomen except at times, and in such minute quantities as only to give rise to those slight attacks and symptoms which I already mentioned as having been of frequent occurrence during the usual intermittent fevers which my patient more or less annually passed through.

Now it is evident, I think, that the second or recent rupture in the duct, which was quite patulous and surrounded with coagula, was the immediate cause of death, and that the first or older opening existed for years, and had been nearly always occupied and closed by the presence of the gall-stone, which only occasionally allowed the bile to escape when from some particular exertion or vomiting it became temporarily displaced.

This case unmistakably points to the wonderful resources of nature in remedying defects caused by disease or accident, and we may readily infer but for the occurrence of the second rupture the mere presence of the first, guarded as that was by its bilious sentinel, would only perhaps have produced at times those colicky pains and that jaundiced appearance I have already described, without at any one time allowing bile to escape in sufficient quantity to produce the fatal result I at last found myself unable to arrest.

Two questions arise in this case. Why was the spleen the only organ so indelibly stained with bile? And does not the fact of the colour pervading the entire structure go to prove that an opening had existed in the duct for a long time.

Antigua, West Indies.

ON TWO CASES OF

OVARIOTOMY, AND REMARKS ON OVARIOTOMY IN CHILI.

BY RICHARD CANNON, L.K.Q.C.P., L.R.C.S.I., M.D. UNIV. CHILI,
LATE SURGEON R.N., ETC.

CASE 1.—C. A——, single, aged forty-three, had one child early in life; menstruation, with occasional attacks of menorrhagia, had been abundant until three years since, when a tumour on the left side of the pelvic cavity was noticed. The swelling had gradually increased, and menstruation became suspended. The patient now presented a tumour about the size of the womb at the eighth month of pregnancy, freely movable, but in general hard, except that fluctuation could be in parts detected. The swelling could be felt descending into the hollow of the sacrum, and had pushed out the posterior wall of the vagina, forming a large rectocele which protruded in an ovoid mass from the vaginal orifice. At the umbilicus there was a very large hernia. The existence of former pregnancy, which was denied by the patient, was diagnosed from the lineæ albicantes, on pointing out which she acknowledged having had a child. The uterine sound could not be passed. The patient suffered from much dyspepsia, flatulence, difficult respiration, and a suffocating cough. Her life was rendered miserable and she was anxious for relief. The tumour was diagnosed as probably ovarian, but from its solidity I was prepared to meet, perhaps, with a large fibro-cystic uterine tumour, and deal with it by hysterotomy. Assisted by Drs. Cooper, Schrœders, and Thiele I operated on the 26th December, 1880. Here we follow, *haud passibus æquis*, the teachings of Mr. Spencer Wells as regards the details of operating. A large polycystic right ovarian tumour presented, which was brought out and tapped as each large cyst came into view. Innumerable minor cysts occupied the deeper portion of the tumour, forming a mass as hard as an ordinary fibroid tumour. Some omental adhesions were secured by fine silk ligatures cut short, and the pedicle secured by an Atlee's clamp. But now a smaller tumour of the left side was found which pressed into the pouch of Douglas and protruded the recto-vaginal septum. This tumour was more made up of smaller cysts than the other, and its pedicle, being too short to allow of the application of another clamp, was tied with a strong silk ligature and left within the abdomen after closing the wound. Deep and superficial sutures of silk were used to close the incision, and solid perchloride of iron was applied to the stump of the pedicle. A morphia suppository was administered and ice given by the mouth, whilst nutrient enemata were applied by the rectum. Vomiting and violent accessions of cough and hiccough came on, all of which strained violently the wound, of which the juxtaposition was rendered still weaker by the existence of the large umbilical hernia. The patient sank forty-eight hours after the operation. No post-mortem examination was allowed, and so great is the prejudice of Chilians against *sectiones cadaveri* that even the clamp, much to my disgust, went to the grave with the patient.

CASE 2.—M. L——, aged forty-eight, is mother of two children, born many years since (a peculiarity of practice in Chili is that patients never know their own age, or the age of their children, but date from some remarkable earthquake or the Spanish bombardment). This patient stated that the tumour had been growing for fourteen years, and was a *falso embarasso*, or molar pregnancy, which had resulted in a tumour. She stated that menstruation had not taken place since the existence of the supposed pregnancy. She presented a tumour of about the size of the pregnant uterus at term, which on examination proved to be a large ovarian tumour. The patient suffered much from difficulty of breathing, constipation, and other symptoms, and was most anxious for relief by any means. Accordingly, on the 11th July, 1881, I operated, assisted by surgeons of six different nationalities, and turned out a large single unilocular tumour without any adhesions. Not a single ligature was required, and the pedicle, secured by a common clamp, was touched with solid perchloride of iron and dressed with carbolic gauze and lint steeped in carbolic acid and oil. Slight vomiting occurred during the first day, but afterwards all went well. Listerian precautions not having been followed out with strictness, some suppuration took place about the sutures, which were removed on the eighth day, and on the tenth the clamp. A little matter formed also about the pedicle. At the end of three weeks the patient was up and thoroughly convalescent.

Ovariotomy is now such a common operation that my only object in publishing these cases is to call to notice the results we have had in this country up to the present.

So far as I can learn the thirteen cases have been as follows:—(1) Dr. Thévenot (French): An unfavourable case; multilocular with adhesions; effusion of the contents of cyst into the abdominal cavity; patient strumous; result successful. (2) Dr. Page (Chilian Swede): Large cyst repeatedly tapped; pregnancy shortly before operation; unsuccessful. (3) Dr. Thiele (German): Single cyst; patient placed under unfavourable circumstances; result successful. (4) Dr. Dessauer (German): Ovariotomy performed twice on the same subject; both operations favourable. (5) Dr. Cooper (English): Two operations; single cysts without adhesions; both operations favourable. (6) Dr. Schrœders (Russian Finn): Single cyst; young patient; result favourable, but intense neuralgic pain, as from a painful stump, came on and rendered the patient's life miserable. (7) Dr. Cannon (Irish): One double ovariotomy unsuccessful; one single successful. (8) A case in Concepcion, South of Chili; successful. (9) Two cases in the general hospitals of Valparaiso and Santiago, both unsuccessful. One case of hysterotomy, for cancer, has proved fatal. We have thus had up to the present a favourable result in 68 per cent. of our cases. In private practice two cases only, placed under most unfavourable circumstances, have been unsuccessful. The hospital cases were placed under the worst hygienic conditions; for here, in the public hospitals, all septic diseases ride rampant and lead the poor patients by an easy descent "unto the mouth of Orcus grisly grim."

A MEETING of the Royal Commission on Small-pox and Fever Hospitals was held on Tuesday, at 20, Great George-street, Westminster. There were present Lord Blachford, Sir James Paget, Sir Rutherford Alcock, Mr. A. W. Peel, M.P., Dr. J. Burdon Sanderson, Dr. A. Carpenter, Dr. W. H. Broadbent, Mr. Jonathan Hutchinson, and the secretary, Mr. Nathaniel Baker.

MRS. CHARLES TURNER, widow of the late member for South West Lancashire, has made arrangements for the erection of a Home for Incurables at the Dingie-head, near Liverpool, of sufficient capacity for the reception of two-hundred patients. The building when completed will have cost, it is believed, a sum approaching £40,000, and Mrs. Turner's munificence will include a suitable endowment for the maintenance of the institution.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

CASE IN WHICH STONE IN THE BLADDER FORMED AFTER AN INJURY TO THE SPINE, FOLLOWED BY PARALYSIS; LITHOTOMY; ADHERENT CALCULUS; REMARKS.

(Under the care of Mr. HENRY SMITH.)

WE are indebted to Mr. Hugh Smith, surgical registrar, for the notes of this case:—

J. W. S——, aged twenty-three, a pianoforte maker, was admitted into Fisk ward on February 20th, 1880. Four years ago, whilst carrying a piano down some stairs, he fell and was wrenched between the piano and a wall, the lower part of his body being fixed, whilst the upper part was twisted round. The point at which the injury occurred was at the lower part of the back, between the last lumbar vertebra and the sacrum. He had great pain across the back when walking, feeling easier when he leant forward. He went to a London hospital as out-patient, and was told to poultice the part. He also applied cold water and with some benefit. The symptoms seemed gradually to disappear, and he returned to work. He could do light work, but whenever he had to lift heavy weights he suffered great pain in his back, and as a support to his back he wore a belt. He continued at work until three weeks ago (Feb. 20th, 1880), when, on account of stiffness in his thighs and inability to micturate, he consulted a medical man. His bowels were also very much confined, for which he used enemata. Six months previous to admission he had a chancre, followed by a cutaneous eruption, sore-throat, and loss of hair. During the last three weeks he has been gradually losing power in his lower extremities till at last, just before admission, he could scarcely walk across the room, and had to be carried about; he had also inability to pass fæces and urine voluntarily.

On admission the patient had complete sensation and motion in his legs, but his urine still passed without his will.

February 23rd, 1880: The treatment pursued consisted of the internal use of iodide of potassium and perchloride of mercury, and the external use of iodine paint over the spine. Bladder syringed out with a solution of sulphate of quinine and nitric acid.—25th: Urine strongly alkaline and phosphatic.

March 1st: Tendon reflex normal; sensation of lower extremities not impaired; patient still unable to retain urine and fæces. Urine alkaline and phosphatic.—3rd: Patient complains of great nausea and frontal headache; has no appetite; urine phosphatic and alkaline.—10th: General health much improved; movement of legs rather more perfect; urine still strongly alkaline.—15th: Condition the same; urine alkaline.—20th: Movement of legs much improved; urine phosphatic and alkaline. Discharged July 13th, 1880.

Readmitted Sept. 22nd till Oct. 31st, 1880, and again in July, 1881, when, with the exception of mercury, the same remedies were used, and he slowly improved, but the urine still escaped involuntarily and remained alkaline.

The patient was readmitted to the Fisk ward on Thursday, January 11th, 1882, under Mr. Henry Smith. When last in the hospital (Aug. 1881) for the first time he noticed blood in his urine during the time that a catheter was being passed. The hæmaturia has continued ever since, and the quantity of blood passed has gradually increased for the last three months. The patient complains of spasmodic pains at intervals, and for the last month of a cramped aching pain in the bladder, extending to the rectum, with a sensation of something which wants to pass per rectum. On Wednesday, Jan. 10th, Mr. Henry Smith sounded the patient for vesical calculus, and detected the presence of a stone in the bladder. Sp. gr. of urine 1024; it contains blood and albumen. Microscopical examination: mucus, pus, and blood corpuscles, and epithelial cells; also crystals of phosphatic and triple phosphates, and some green patches scattered about the field. Since the patient has been out of hospital he has got stouter, and has been in better health, and complains of nothing but his abnormal urine and pain in the bladder. The patient has considerable power in the lower extremities, and with help can walk. Sensation over these parts is exaggerated; slight pressure on the feet, for example, causes pain. Reflex action of the lower extremities increased. Has no control whatever over the sphincter vesicæ. Priapism occurs when a sound is passed; great hæmorrhage takes place, and there is severe suffering for hours afterwards.

Jan. 26th: Mr. Henry Smith performed lateral lithotomy. After making the incisions and passing his finger into the bladder the operator experienced considerable difficulty in removing the calculus. This was afterwards found to be due to the adhesion of the stone to the lining membrane of the bladder. The calculus was phosphatic, one inch and a half in length and three-quarters of an inch in transverse diameter. At one end a rough surface existed, showing by what part the stone had been attached to the lining membrane of the bladder.

Not a single bad symptom followed the operation. The wound healed rapidly. In a fortnight the urine became acid; he had more power to expel it. He could move his legs more freely and walk with assistance, and he was discharged on April 2nd.

Remarks.—In the clinical remarks made by Mr. Henry Smith in reference to the above case, which had excited a great amount of attention at the hospital, he stated to his class that it was one of the most interesting cases of stone in the bladder he had ever met with, and it afforded many features worthy of their consideration. In the first place, here was presented an instance of that very rare condition where the stone was adherent to the bladder, a circumstance which of course would add materially to the ordinary difficulties the surgeon has to encounter in the treatment of this disorder. Then again, there was the fact that the stone had formed in the bladder consequent upon a diseased condition of the spinal cord, the combined result of injury and syphilis. The formation of a phosphatic stone under such circumstances was not a rarity, for it was very easy to understand how it was that a stone would form when the nerve supply to the bladder had been interfered with. The patient loses the power of emptying his bladder properly, the urine remaining behind becomes alkaline and putrescent, and there is a great tendency to the deposit of phosphates and of their aggregation into calculous substance. Moreover, a low form of inflammation sets in, ulceration is liable to take place, and hence a much greater liability for a stone to become adherent to the interior of the bladder. These facts were important for students to bear in mind when they came to undertake the treatment of a case of disease of the spine where the bladder especially was involved. With respect to the treatment which should be adopted for the removal of the stone in this case, the particular circumstances surrounding it rendered it a very difficult task for him to hit upon the right course. In the first place, when he looked at the man's feeble health and paralysed condition, he was reminded forcibly of the question which Sir Henry Thompson has asked—viz., as to what are the cases in which the surgeon should not undertake any operation at all. Then, after watching the man for a time, and noticing his agony, he answered that question at once by deciding to interfere somehow. But by what means? The stone was neither very large nor was it hard, and he could doubtless crush it readily, and by means of Bigelow's apparatus get it all away in one sitting; but that process would require, as in a case lately sent to him by the surgeon of their convalescent home, Mr. Batterbury, the introduction both of a lithotrite several times, and subsequent passage of a very large tube along the urethra into the bladder many times during the hour which would be spent in the process. Seeing the great amount of pain and bleeding which followed on the most careful employment of an ordinary sound, he came to the conclusion, after careful consideration of all the facts of this difficult case, that it would not be wise to crush the stone. He then decided upon lithotomy, although he could not conceal from them the fact that this operation is a much more dangerous one than lithotrity under ordinary circumstances, and of course they were aware that in the operation of lithotomy done by the most careful surgeon eventualities

may occur, such as difficulty in extracting the stone, or the breaking of a stone in the forceps, as they had witnessed in his hands not long ago, or subsequent hæmorrhage, and other evil results of making a large wound, which would in such a patient soon turn the balance against him. However, he carefully considered all these matters, and unhesitatingly came to the conclusion that the best thing to do was to get the stone out of the bladder as quickly as possible. Fortunately, the operation was very simple, and the event had justified him in the selection of the treatment he had advised.

MANCHESTER ROYAL INFIRMARY.

OSTEO-CHONDROMA OF LEFT THIGH; FRACTURE OF FEMUR; AMPUTATION AT HIP-JOINT.

(Under the care of Mr. F. A. HEATH.)

FOR the following notes we are indebted to Mr. C. A. J. Robertson, house-surgeon:—

Emma W——, aged thirty-one, married, was admitted on January 4th, 1882. She stated that her left thigh had always been weak and painful, and that four years ago she noticed for the first time a small, hard, round lump at the upper and outer part. The lump was painless, and gave rise to no special discomfort, but it gradually and progressively increased, and at the end of two years had attained such a considerable size that she determined to consult a medical man. She was then told that the "lump" was a bony tumour, and was advised to go to the infirmary. Some twelve months subsequently, the tumour in the meanwhile appearing to increase more rapidly, she acted upon this advice, but declining to submit to any operative interference, she left the hospital and returned home. During the following months the tumour continued to increase in size, occasioned considerable pain, and gave rise to great inconvenience. A week before admission the patient was going downstairs, when, in consequence of her foot slipping, she fell with considerable force and fractured the left femur. The uselessness of the limb and the excruciating pain she suffered induced her to again seek admission into the Royal Infirmary, and she came under the care of Mr. Heath.

On admission, the upper part of the left thigh was seen to be greatly increased in size, measuring 29 in. in its greatest circumference. The enlargement was mainly caused by a large rounded tumour connected with the upper part of the femur, and apparently springing from its anterior and outer surfaces. The tumour was well defined, its surface nodular, and its consistence firm, in some parts presenting a bony hardness, whilst in others it was so elastic and tense as to closely simulate cystic formations. The skin over the tumour was not implicated in the new growth; it was, however, somewhat tensely stretched over it, and its surface looked smooth and glistening; in parts it was slightly pigmented, and some few atrophic linear striæ were observed. Movement of the limb elicited crepitus in the region of the tumour, and revealed a fracture of the femur, apparently about the centre of the tumour mass. The whole limb was swollen, the skin of the thigh was reddened, very tender, and its temperature distinctly increased, whilst the temperature of the leg below the knee was slightly lower than that of the opposite limb. There was no shortening, and apparently no deformity beyond that due to the tumour and to the general swelling. The glands of the groin were of normal size. The patient presented a somewhat worn and anxious expression of countenance, but generally was well-developed, robust, and healthy. The increased rapidity of the later growth of the tumour, together with the coincidence of the fracture of the bone, and the condition of the limb being taken into consideration, amputation of the hip-joint was decided on.

Mr. Heath operated on Jan. 13th, adopting for convenience, and to increase the facilities for strict antisepticity, lateral flaps (cut from without), and disarticulating at the hip-joint. The larger vessels were ligatured with catgut, the smaller ones twisted; flaps were then brought into apposition, and so retained by sutures, efficient drainage being secured by the introduction of two large rubber tubes. The wound was dressed antiseptically, and the stump slightly elevated on a cushion. During the operation the patient was kept under the influence of chloroform, hæmorrhage being controlled by means of Lister's abdominal tourniquet and digital pressure, and antiseptic precautions adopted throughout.

On recovering from the effects of the anæsthetic the patient experienced great pain, which however was so far relieved by the exhibition of opiates that she was able to sleep during the greater part of the day. Evening temperature 99°; pulse 150. She slept well during the night, and on the following morning (Feb. 14th) pain had almost disappeared. Temperature 99·4°; pulse 130. Nausea and vomiting came on about midday, and continued until the following day, when koumiss was ordered instead of the iced milk and soda-water she had hitherto been taking. The vomiting ceased, and did not recur. On Feb. 17th the patient experienced a slight rigor, and the temperature ran up to 100·6°; with this exception the whole course of the case was satisfactory; the temperature varied from 99·4° to normal, the pulse rapidly regaining strength and tone, and the wound progressed uninterruptedly to the formation of a healthy cicatrix. The patient left the hospital well on the 7th March.

The amputated limb was examined by Mr. A. H. Young, pathologist to the infirmary, who reports as follows:—"The new growth, which originated in the deeper layers of the periosteum, was limited to the upper part of the shaft of the femur; it extended from the great trochanter above to a distance of five inches below this, and concealed almost two-thirds of the circumference of the bone, on its anterior and lateral aspects. The tumour formed a large globular mass, which measured six inches and a half vertically, six inches transversely, and four inches and a half in its antero-posteior diameters; its circumference (horizontally) was fourteen inches and three-quarters. The surface was irregularly nodular and covered with a dense fibrous investment, by which the growth was distinctly circumscribed and encapsuled. On section the substance was found to consist mainly of rounded cartilaginous nodules (with the pale bluish and translucent appearance of hyaline cartilage), separated by a comparatively small amount of fibrous tissue, which, superficially, was continuous with the fibrous capsule of the tumour; in many parts calcareous deposits existed. Microscopically the cartilaginous nodules showed numerous rounded and ovoid cells in a hyaline matrix. In some parts the cartilage was undergoing ossification, and here the usual changes of intra-cartilaginous calcification and ossification were manifest; the cells were proliferating and evidencing a tendency to dispose themselves in vertical rows. Numerous bloodvessels existed in the intra-cartilaginous connective tissue. The shaft of the femur was not implicated in the new growth; the medullary tissue was also free. The anterior part of the shaft in the region of the tumour was however slightly thinner than elsewhere, and probably the situation of the fracture of the femur was determined by this condition; the fracture, which was evidently the result of considerable violence, ran obliquely from before backwards between three and four inches below the great trochanter and corresponded to about the centre of the tumour."

JOHANNITER HOSPITAL, BEIRUT SYRIA.

SURGICAL CASES.

(Under the care of Dr. GEORGE E. POST.)

CASE 1. *Fracture of the Protuberance of the Parietal Bone, and of the Greater Wing of the Sphenoid; Exophthalmos; Hemicrania; Removal of Bone; Recovery.*—A man, aged twenty-five years, was struck with a club over the left parietal bone in such a way as to wound the scalp and break the parietal protuberance, and cause depression of the fractured bone to a slight degree. He received medical care from a native physician for two months, after which time he came two days' journey by muleback, and entered the hospital. He stated that the wound over the parietal bone was the only one at the time of the injury, but that after several days he observed a swelling in the left temporal region, followed by exophthalmos and loss of sight of the left eye. The native physician opened the swelling by an incision parallel to the zygomatic arch, and half an inch above it, and evacuated a 'small quantity of pus. The opening was still discharging matter at the time of his entrance. On examination there was found: (1) A wound an inch in length, antero-posterior in direction, over the left parietal protuberance; this wound was probed, and de-

pressed bone found at its bottom; there were no symptoms of compression. (2) A second wound, as before described, above the zygoma; probing revealed dead bone at a depth of two inches from the surface. (3) Exophthalmos of left eye and loss of vision in it, with redness of the conjunctiva; the mental functions were heavy, owing to the constant headache on the injured side.

On June 30th the temporal wound was enlarged, and a piece of the greater wing of the sphenoid was removed with a sequestrum forceps. The piece was as large as a half-sovereign. The two wounds were then dressed with carbolic solution (one in thirty).

July 14th: After the removal of the dead bone the tumefaction in the temporal region gradually subsided, the exophthalmos little by little diminished, and the parietal wound healed without exfoliation. At this date he had a sudden attack of violent pain in the occipital region, and vomited freely and often. The pain and vomiting were checked by the hypodermic use of morphia, and did not return.

Sept. 11th: The temporal wound was now healed, and the exophthalmos was much reduced. His general condition was much improved, and he was discharged.

Jan. 12th: He returned to get a medical certificate of the case. The exophthalmos had quite disappeared, but the left eye was turned towards the outer canthus. He still complained of slight headache, but his general health was good.

Remarks.—The interest of the case is the probable occurrence of limited fracture of the greater wing of the sphenoid from contrecoup. The patient was positive as to not having received a blow on the temple, and it is difficult to see how it could have reached so deep-seated a bone without noticeable injuries of the external parts.

CASE 2. *Compound Fracture of the Lower Extremity of the Humerus.*—A child, aged nine years, fell from a mule, and hurt his arm. He afterwards rode six hours without any dressing to the wound or splint for the fracture. There was a wound above the internal condyle as large as a sixpence, from which protruded a sharp point of bone connected with the cylinder of the humerus. The forearm was everted by the action of the extensors and supinators. The internal condyle was not broken, and the movements of the joint were normal. A careful examination showed that the line of fracture extended obliquely downward and outward from a point two-thirds of an inch above the inner condyle to the middle of the external condyle. It will be remembered that the origin of the pronator radii teres and of the flexors is from the inner aspect of the lower fragment, while that of the two supinators and the extensors is from the upper, and that the result must be supination with abduction. In a case of simple fracture of this kind, the treatment is easy, the limb being extended, and a padded splint placed along its inner aspect from the axilla to the wrist, and secured by a roller, or by strips of adhesive plaster. The existence of the wound above the inner condyle made this mode of treatment more difficult. The following was the mode of adjustment resorted to. A pad was fitted to the exterior aspect of the arm (with the forearm bent at a right angle) extending from the middle of the deltoid muscle to the olecranon. A grooved splint was placed over the pad. A pad was now placed on the inner aspect of the arm from a point on a level with the upper end of the outer pad to a point half an inch above the wound. The arm was then bandaged to the splint with an ordinary roller, and after the forearm had been encased in blanket, it was bandaged from the wrist up with a plaster-of-Paris bandage, which was likewise passed over the pad and splint on the arm; and the forearm was suported in a sling. The result of this method of dressing was to draw the shaft of the humerus towards the splint, while the lower part of the splint pressed the external condyle inwards. There was moderate fever for a fortnight after the accident, and slight discharge from the wound. After a month the splint was removed, and the bone found united. The movements of the elbow were fair. A week later there suddenly occurred considerable swelling about the joint, and high fever. The joint was poulticed, and after a fortnight a fluctuating swelling was observed over the external condyle. This was incised, and about two ounces of laudable pus evacuated. No bone came out of this opening, which soon healed, leaving the joint in good condition.

At the date of this report, a year and a half from the time of the accident, the motions of the joint are almost perfect; a slight impairment of flexion being caused by the callus along the line of union. There seems to be a probability that even this slight impediment will disappear in course of time.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cancer of Sigmoid Flexure.—Addison's Disease.—Pulmonary Embolism.—Rupture of Œsophagus.

THE ordinary meeting of this Society was held on Tuesday last, Dr. Wilks, President, in the chair. Several very interesting specimens were shown, especially a dissection of the solar plexus in a case of Addison's disease; and a discussion occurred as to whether sporadic cases of epidemic cerebro-spinal meningitis are met with in London practice. Mr. Hutchinson showed a remarkable case of bronchocele which had become ossified and then necrosed.

Dr. DICKINSON showed a specimen of Cancer of Sigmoid Flexure. The patient, a woman, aged forty-nine, was brought into St. George's Hospital with a large abdominal tumour on the left side projecting 2½ inches from the surface, reaching from the ribs to pelvis, and from the middle line to the loin; it was tympanitic on percussion. The tumour was sharply outlined. It appeared to be a collection of gas outside the peritoneum. There was no history of bowel obstruction or ulceration; fæces liquid and fairly abundant. Shortly afterwards the tumour became red like a "pointing" abscess. Mr. Pick punctured it; fetid gas, and then a little fæces escaped. For some time a purulent and feculent discharge continued, then it got less, and the woman died. At the autopsy a cavity was found in the cellular tissue outside the peritoneum leading to a cancerous stricture of the sigmoid flexure which was very narrow indeed. Such a complication of stricture of the intestine Dr. Dickinson thought to be very uncommon.—Mr. HARRISON CRIPPS asked if the other abdominal organs had been examined, and if secondary growth had been found. The tumour looked like a simple adenoid growth, not technically a cancer; if so it was of the kind that might be removable by the surgeon.—Dr. DICKINSON said that the tumour had not yet been examined microscopically. He believed the other internal organs were free from secondary growths. To the naked eye the tumour when fresh was like soft encephaloid.

Dr. DOUGLAS POWELL and Mr. SUTTON showed a Dissection of the Nerves in a case of Addison's Disease. The man, aged twenty-two, had well-marked symptoms of Addison's disease. Six months before admission he had a febrile attack, with flying pains about the body. He was confined to the house for six weeks, and became very emaciated. He was a laborious out-door porter. On admission the look of the man was that of an emaciated man with great prostration, answering questions slowly. There were several deeply pigmented moles on the neck. The nipples were dark, and there were splashes of pigment over the belly, and some of the spines of vertebræ. The hands were of a dead-white colour, and the ends of the fingers were like those of a dead man. The pulse was very feeble, and at times almost disappeared altogether, and if he rose in bed he had attacks of syncope. He suffered much from vomiting. Temperature low. Urine, sp. gr. 1030, acid. Mucous membranes not discoloured. Blistering fluid was applied below one clavicle, and as soon as the blister healed the characteristic pigmentation appeared very markedly. He gradually and steadily got worse. On March 7th the temperature rose, and on March 11th he died, with a dry tongue and all the signs of exhaustion. For a day or two before death the odour of the body was cadaveric. At the autopsy the left lung showed consolidation, undergoing softening at the apex, and a smaller spot of tubercle at the right apex. Kidneys, liver, and spleen normal. Heart five ounces and a half; very small; friable. Aorta unusually small. Supra-renal capsules were much enlarged, rough, and nodulated; on section the cortex and medulla were indistinguishable, both infiltrated with a fibroid matter containing fatty and calcareous nodules. Some of the lymphatic glands near the capsule were enlarged.—Mr. SUTTON made a careful dissection of the nerves, and for comparison those of another healthy subject; those of the morbid specimen were enlarged; the nerves did not come out clearly; their sheaths were thickened; the ganglia were enlarged and indurated. The dissection also showed two branches of the left vagus passing to the semilunar ganglion, as had been described by Dr. Coupland and Dr. Habershon. This case

was one that agreed with many others which showed that the destruction of the capsules had little or nothing to do with the symptoms of Addison's disease. The changes found in the capsules could hardly have been produced in eight months. The symptoms were caused by the extension of the disease to the neighbouring nerves. The supra-renal capsules were proportionately very large in the fœtus, as was shown by another dissection of Mr. Sutton's. Microscopical examination did not show any marked change in the ganglia.—Dr. WILKS said the nerves did not seem to be implicated in mass, but the diseased process travelled back along the fine branches. It was a case towards the solution of a vexed question. At the last discussion the general opinion seemed to be opposed to the view that the symptoms were due to the nerves being involved.

Mr. STANLEY BOYD showed a specimen of Embolism of Pulmonary Artery. The patient was a woman who had sustained fracture of the metatarsal bones of the right foot and severe bruising of the right leg and thigh. Thrombosis of the femoral vein ensued, and a little later she somewhat suddenly became cyanosed, and her breathing became exceedingly rapid, though not difficult. There was no pulse at the wrist; she died in ten minutes. At the post-mortem the right pleura contained two ounces of bloody fluid, but the lungs were normal; in the right side of the heart was an almost completely decolorised clot, which extended to the bifurcation of the pulmonary artery. Beyond this a firm clot, having no connexion with the walls, was found; the left pulmonary artery was plugged as far as its second bifurcation. The clots in the various branches all ended abruptly. There was an appearance of an embolus in the clot in the left artery; on section of this supposed embolus, it was found to be firm, very dark in the centre, with a pale, faintly laminated periphery.

Mr. STANLEY BOYD also showed two specimens of Rupture of the Œsophagus. The first patient, a young woman aged eighteen, was admitted into University College Hospital under Mr. Heath, in a moribund condition; the most marked symptom was vomiting of the most severe kind; there was no dyspnœa, and no subcutaneous emphysema. At the post-mortem about two ounces of bloody fluid, free from any trace of food, was found in the left pleura; this had apparently been extravasated through a rent in the left side of the œsophagus and its investing pleura. This rent was 5 centimetres long; its edges were well defined and not ragged; the mucous membrane had been destroyed for a short distance in parts, and the pleura over this part of the œsophagus had quite disappeared, but was still smooth and glistening in the immediate neighbourhood. The gastric mucous membrane showed the recognised signs of self-digestion. The supra-renal bodies were much enlarged, and on section were firm and of a yellow colour. Microscopic examination showed a dense, very small round-celled growth, containing many granular protoplasmic masses with marginal nuclei. Dr. Sidney Coupland, who had seen the specimens, agreed with Mr. Boyd in considering the change to be tubercular. Inquiries that Mr. Boyd had made proved pretty conclusively that the girl had been suffering from Addison's disease for about seven months at least before her death. Mr. Bond believed that the rupture of the œsophagus had occurred during life, founding this opinion on the form of the rupture—a long tear, not a circular or irregular aperture—on the character of the fluid found in the pleura, and on the absence of much evidence of post-mortem digestion. Zenker and Ziemssen had described sudden pain, cessation of vomiting, emphysema, collapse, and suppression of urine as the symptoms of rupture of the œsophagus, and as these were not present he concluded that the rupture must have occurred shortly before death.—Mr. STANLEY BOYD then related a case of Rupture of the Œsophagus, in which the œsophagus had ruptured into the right pleura, and exhibited the specimen. The patient was an infant, aged four months, who had been exceedingly ill for some weeks before death, owing to an attack of erysipelas succeeded by peritonitis, which had followed an operation for strangulated undescended testicle. About two hours before death, dyspnœa suddenly set in and lasted for an hour. After the dyspnœa passed off the child was able to take food in small quantities; but while the dyspnœa lasted the child choked when given brandy and milk. At the post-mortem about one ounce of clear, deeply blood-stained fluid, free from lymph, or any trace of milk, was found in the right pleura; both lungs were partially collapsed, the lower and middle lobes on the right side were very red, and were studded with petechiæ, and at the root there was a considerable subpleural hæmorrhage; the pleura was absent from the œsophagus over the whole of its right side, below the root of the lung, and its torn edge could be easily seen near the diaphragm. Pressure on the œsophagus caused a bubble of air to escape through a small opening in its wall; on the inner aspect of the gullet several small blood-clots were found near the hole referred to; this measured about two millimetres, and for a short distance above and below it the circular muscular fibres were exposed. Mr. Boyd considered that the clots in the gullet, the bloody fluid in the pleura, the marked redness and numerous petechiæ on the surface of the lung proved that the perforation took place during life, and that possibly it had been the cause of the dyspnœa which set in a few hours before death.—Mr. BUTLIN could scarcely think that the first case was an ante-mortem rupture of the œsophagus, and he suggested that it should be examined by the Morbid Growths' Committee. He asked if any blood was found in the pleura or stomach, or had been vomited.—Mr. BOYD said that from two to three ounces of blood unmixed with food was found in the left pleura. In answer to the President, he said that most of Ziemssen's cases of spontaneous rupture of the œsophagus were taken from English literature; one was recorded in the Pathological Society's Transactions.—Mr. MORRIS asked if any of the cases had any symptoms of disturbance of the vagus nerves.—Mr. BOYD said there was intense collapse in most cases; one case lived eight days.—Dr. DOUGLAS POWELL said the first case was one of Addison's disease, and it was a moot point whether the involvment of the branch of the vagus to the semilunar ganglion did not account for the vomiting. He thought it difficult for an œsophagus to rupture unless the nutrition of its coats was previously interfered with.—Mr. WALSHAM mentioned that there was a specimen of a rupture of the œsophagus in St. Bartholomew's Hospital which was said to be spontaneous.

(To be concluded.)

CLINICAL SOCIETY OF LONDON.

Antiseptic Ligatures.—Spina Bifida.—Congenital Intestinal Obstruction.—Primary Perichondritis of Larynx.

THE ordinary meeting of the Clinical Society was held on Friday, April 28th, Professor Lister, F.R.S., in the chair. Two living specimens were exhibited in the ante-room—one of acne varioliformis by Dr. Stowers; the other a child with absence of the right external auditory meatus and a superfluous rudimentary auricle on the left side, by Mr. Morgan.

Dr. HECTOR C. CAMERON (Glasgow) read a paper on Cases of Antiseptic Ligature of Arterial Trunks in their Continuity, which included all in which he had performed such an operation. The material used was antiseptic catgut (prepared by one or other of the methods suggested by Mr. Lister) of medium size, and tied in a reef knot with sufficient tightness to ensure division of the internal and middle coats of the vessel. Very accurate coaptation of the cutaneous margins of the wounds was practised by stitches of carbolised silk and silkworm gut, with an occasional stitch of thick silver wire for purposes of relaxation, where that seemed desirable. Free drainage was effected by means of india-rubber drainage-tubes in all the cases except one, in which a number of strands of carbolised catgut were employed. The operations, as well as the subsequent dressings, were conducted with rigid antiseptic precautions. Case 1: A labourer, aged thirty-eight, in good general health, was admitted into the Royal Infirmary on July 17th, 1876, with a traumatic aneurism of the lower and inner part of the left arm of six months' duration. The brachial artery was tied in the first part of its course with carbolised catgut on July 20th. On July 30th the wound was healed, having furnished throughout only a slight sero-sanguineous discharge, and having been free from any pain or swelling. The patient was readmitted to the wards the following winter on account of limited gangrene of one or two toes, from which he also made a good recovery. His arm, he said, was as strong as ever.—Case 2: An old soldier, aged forty-four, was admitted on July 14th, 1880, with a large popliteal aneurism, extending as high as the junction of the lower with the middle third of the thigh on its inner side. A month before he noticed a small pulsating tumour at the back of the knee, which he felt suddenly give way on July 8th while he was at work. The swelling at once greatly increased, while the pain became so severe as to make him

leave off work. From that date the tumour had steadily increased in bulk. Pulsation could be distinctly felt in it, and was controlled by compression of the femoral artery; there was some œdema of the foot and leg.—July 19th: The femoral artery at the apex of Scarpa's triangle was ligatured with carbolised catgut.—July 29th: Wound quite healed, the discharge throughout was only sanious in character, and there was no constitutional disturbance save a slight rise in temperature during the first few days after the operation. The tumour gradually but slowly decreased in size, and in November all traces of it had disappeared, and he was in excellent health.—Case 3: A commercial traveller, aged forty-four, with an aneurism of the popliteal artery the size of an orange. The femoral artery at the apex of Scarpa's triangle was tied with carbolised catgut on Sept. 23rd, 1880. At the third dressing, on Oct. 1st, the wound was found firmly healed except where the drainage-tube had lain, and in a few days this spot was also cicatrised. The temperature was normal throughout and the patient's general health undisturbed. The aneurism was cured.—Case 4: J. L——, aged forty-three, was admitted into the Royal Infirmary on account of an aneurism of the femoral artery under Poupart's ligament, extending both above and below that structure; it was first noticed about eight months previously. On Feb. 15th, 1881, the external iliac artery was tied with a piece of antiseptic catgut given to Dr. Cameron by Mr. Lister, and which had been prepared by a method described by him in THE LANCET, Feb. 5th, 1881, both chromic acid and carbolic acid having been made use of. The patient progressed without any fever or pain in the wound, and on Feb. 26th the wound was healed throughout, except where the little piece of drainage-tube lay. A week later cicatrisation was complete; the aneurism consolidated, and when seen lately, on account of a slight tendency to the formation of hernia at the outer end of the cicatrix, all trace of it had disappeared.—Case 5: A widow, aged fifty-seven, consulted Dr. Cameron in the beginning of March, 1882, in regard to a pulsating tumour just above the right sterno-clavicular articulation. Dr. Finlayson, one of the physicians of the Western Infirmary, examined the patient on March 22nd, and made the following note:—"There was a very distinct pulsating tumour, involving apparently the innominate artery. It could be felt as a movable tumour, sliding to some extent behind the sterno-mastoid on being handled. Pulsation, continuous with it, extended into the sternal notch, and in that position had a heaving character. An obscure shock, coincident with the second sound of the heart, could be felt in the upper part of the sternum and contiguous part of the chest wall, but no heaving impulse. On auscultation the most prominent fact was the greatly deepened quality of the second sound, but no murmur was audible in any part of the chest. There was an area of pronounced dulness extending from the right sterno-clavicular region towards the cardiac dulness, and measuring about two inches transversely. There did not appear to be any marked cardiac hypertrophy. The radial pulses were as nearly as possible equal, and there was no difference in the size of the pupils. No pressure signs were recognisable, and the patient did not appear to suffer much inconvenience from the disease. The signs seemed to indicate clearly an aneurism of the arch of the aorta of considerable size, and specially involving the innominate artery." On March 24th the right subclavian and carotid arteries were tied with antiseptic catgut furnished by Mr. Lister. It had been prepared by immersion in a 1 per cent. solution of chromic acid for twelve hours, and afterwards for twelve hours in the solution of sulphurous acid of the British Pharmacopœia. Both ligatures were placed in a watery solution of carbolic acid (one in twenty) for about half an hour before being used. There was no constitutional or local disturbance. The temperature continued normal throughout; and on April 12th the wounds were completely healed. Dr. Finlayson then reported: "The defined tumour described as existing behind the sterno-mastoid muscle cannot be recognised; but there is marked pulsation in this situation, and the pulsation extends towards the sternal notch in a very pronounced manner, and is associated with much heaving there. Indeed, the heaving pulsation at this point seems to me to be more marked than before the operation; although the whole pulsating area is, no doubt, less. The dulness on percussion in the upper part of the chest, the deepened second sound, and the sense of shock on application of the hand still continue very distinct. The radial and temporal arteries do not pulsate on the right side." In these five cases of aneurism six large arteries were ligatured. In each complete and permanent occlusion of the vessel was obtained without any constitutional or local disturbance, without any rise of temperature (if we except the case of diffuse popliteal aneurism during the first six days), and without the formation of a single drop of pus. The last dressing was applied respectively on the fourteenth, tenth, eighth, eleventh, and twelfth day, and on the removal of that dressing the wound was discovered to be thoroughly sound. On similar principles the radial artery was ligatured four times, the ulnar artery twice, and the popliteal artery once, with equally satisfactory results. In the last case, which was one of a very deep wound of the lower part of the inner side of the thigh completely dividing the popliteal artery and vein, there had been great hæmorrhage, and the anterior part of the foot lost its vitality, and ultimately required amputation.—Mr. GODLEE was greatly interested in Dr. Cameron's series of very successful cases. He should like to know his opinion about cases in which other means of treatment could have been employed, as pressure and the use of the elastic bandage. After seeing the catgut ligature always successful, and without producing any pain, he was coming to the opinion that it was right to resort to that treatment at once without at first employing such painful means. Both slipping of the knot and too rapid softening of the catgut were now things of the past owing to the great improvements recently introduced into the preparation of catgut.—Prof. LISTER said that Dr. Cameron's experience coincided with his own in so far as it showed that the old-fashioned catgut answered quite well when well prepared and used strictly antiseptically. Except near any large branch, long duration of the catgut is probably needless. But even if a perfect ligature were obtained, as strong as silk, as soft as the normal tissue is, in which a knot holds with perfect security, and of a substance free from all porosity—if it were not employed antiseptically its use would be risky; the outer coat of the artery would then die and putrefy, and diffuse suppuration and secondary hæmorrhage might occur. Dr. Cameron's success had been chiefly due to the fact that he had employed antiseptics with perfect success; only in such circumstances would any ligature be invariably successful.—Dr. CAMERON said that in the two cases of popliteal aneurism referred to in his paper he applied Esmarch's bandage for about twenty minutes, until the pain became unendurable. He had seen two cases of popliteal aneurism treated unsuccessfully by pressure; the femoral artery was then ligatured at the apex of Scarpa's triangle, and in each case pulsation recurred, and the artery had to be ligatured lower down. These cases led his colleague, under whose care they occurred, in another similar case to ligature the artery in Hunter's canal at once, and this was successful.

Mr. PEARCE GOULD read notes of a Case of Cured Spina Bifida, which was shown at a previous meeting of the Society. The child was six months of age when placed under his care, and was a very healthy, well-developed boy. A tumour was situated over the lumbar spines, about the size and shape of a tomato, covered with healthy skin, sessile, fluctuating, and translucent. The tumour became very tense when the child cried, and pressure on it caused fulness of the anterior fontanelle. No paralysis or talipes. The tumour had been steadily increasing in size since birth. Mr. Gould drew off about an ounce of the contained fluid, and injected a drachm of Morton's iodo-glycerine solution. As no effect was produced, in a week's time he repeated the operation, this time injecting a drachm and a half of the solution. No bad symptoms occurred, and the tumour became solid and shrank, until it remained as a puckered fold of skin only. The fluid removed was analysed by Dr. Dupré, who failed to find even a trace of sugar in it, showing that it was arachnoid, and not subarachnoid fluid, and Mr. Gould pointed out that this was the most favourable variety for radical treatment. By experiment he found that the iodo-glycerine solution did not readily mix with the fluid, but when poured into it sank to the bottom, thus confirming Dr. Morton's theory.—Mr. PARKER thought that from the healthy skin over the tumour and the absence of all complications the case was one likely to have been successful. He treated a case in the same way about five years ago, and at the present time the tumour had almost shrunk up; but hydrocephalus had developed, and a tendency to talipes valgus had been noticed. He had injected Dr. Morton's solution in another case that day. He had also been called upon to treat a case in which the sac had been boldly slit up; and in cases with very thin sacs he thought such an operation, with antiseptic precau-

tions, might offer the best chance.—Professor LISTER said the case was a very favourable one for such treatment, and it was useful to have another proof of its value. He thought it the best treatment at present known. He had himself attempted the treatment of spina bifida by antiseptic drainage; at first with a small drainage-tube, and the result was disastrous, evidently from the free flow of the cerebro-spinal fluid. He therefore used a drain of only two horsehairs, but even the flow so caused proved fatal, and the child sank from inflammation from loss of support to the brain. He therefore thought that antiseptic drainage or incision did not offer a prospect of success.—Mr. PEARCE GOULD, in reply, referred to three other cases under his care, in which he had carried out the same treatment. In one the child died after the second injection from suppurative spinal meningitis; a second was lost sight of; in a third the sac consolidated, but the child died of concurrent hydrocephalus. This latter child was profusely salivated the day after the injection, probably from the absorption of iodine. In a case under Mr. Macnamara's care, in which the sac was exceedingly thin, success had been obtained by the repeated injection of the same solution. At the first operation the child almost died from the effects of loss of the cerebro-spinal fluid.—Professor LISTER said that Dr. Morton had pointed out this danger, and that latterly he had recommended that no fluid should be withdrawn.

Mr. PEARCE GOULD related a case of Congenital Intestinal Obstruction. A. B——, a female, aged three days, was brought to Westminster Hospital on Aug. 5th, 1881, because in spite of several doses of castor oil it had not passed any meconium or motion, and it had vomited several times. The child was thin, but showed no outward deformity. The anus was normal, and the terminal joint of the little finger could be passed into the rectum, which appeared to be closed over above it; no fulness or tumour could be felt in the pelvis per rectum. A catheter and probe were each stopped about one inch from the anus. The belly was distended, its walls œdematous, and there was a little ascites. Mr. Gould opened the belly above Poupart's ligament on the left side. A coil of distended small intestine presented, and as no distended large intestine could be found, it was carefully stitched to the edges of the incision and then opened. A large quantity of meconium at once escaped. The child died twenty-one hours afterwards. At the autopsy there was no evidence of peritonitis. The cæcum, the lower four inches of the ileum, and the first four inches of the colon were filled with a firm whitish plug of inspissated mucus of the consistence of cheese, which was firmly applied, but not adherent, to the mucous membrane. In the colon beyond this plug were found several masses of milk-white firm mucus. Below this the colon and rectum were empty, and contracted to the size of a clay tobacco-pipe stem. Above it the small intestine was distended with meconium and gas. It was pointed out that there was here no fault in development, but obstruction from a plug. From the white colour of the plug it was assumed that it was deposited by the third month of fœtal life, as bile passes into the duodenum at that time. Three cases of congenital obstruction of the small intestine, briefly referred to by Mr. Holmes, were mentioned, and also the case of obstruction from a croupous membrane recorded in the Clinical Society's Transactions by Dr. Markham Skerritt. Mr. Gould also insisted on the advantage of opening the belly in the groin in all cases of congenital intestinal obstruction in preference to lumbar colotomy, which would have been impossible in this case.—Dr. COUPLAND asked if Mr. Gould was sure the obstructing mass was really inspissated mucus. If so the case was really unique, and did not belong to the class of cases brought to the Society by Dr. Skerritt, in which there was a false membrane and inflammation of the intestinal wall. If it were mucus it was of interest, as showing that the glands of the intestine become active at a very early period of intra-uterine life.—Professor LISTER said that the point raised by Dr. Coupland was that of chief interest, and he hoped Mr. Gould could give further information on the point.—Mr. PEARCE GOULD replied that he was convinced that the obstructing plug was really mucus; the mucous membrane all around it was quite healthy; at each end the plug was soft normal mucus, and this gradually passed into the firm white mass.

Dr. DE HAVILLAND HALL described a case of Primary Perichondritis of the Larynx, in a man aged twenty-four, a dust-collector. With the exception of an attack of gonorrhœa, the patient could give no account of having had any illness till about Christmas, 1879, when he had a cough and rheumatic pains. Since then he had been hoarse. The hoarseness came on quite suddenly. In the winter of 1880–81 he had a cough, which had continued, and since that Christmas he had done no work. About May, 1881, he had a sore-throat, the pain being at the seat of the thyroid cartilage, and dysphagia, and in June there was added dyspnœa. In August he expectorated some blood and pus, which relieved him to some degree. Early in September he became much worse, with great dyspnœa, paroxysmal cough, and hoarseness, and he was then admitted into the Westminster Hospital, and four days later tracheotomy was performed. After the operation the epiglottis was found to be intact, the glottis greatly contracted in all its diameters, the cords being much reduced in length. The right cord moved slightly anteriorly and posteriorly on phonation, but the central part was incurved, having a narrow elliptical opening. The thickened, hardly recognisable remains of the left cord was immovable in the median line. On deep inspiration the glottis would admit a No. 12 catheter. There was a considerable amount of inflammatory swelling in the ary-epiglottic folds, especially on the left side. While in the hospital he was treated with iodide of potassium, and though the swelling diminished and the glottis increased in size, he was discharged on Nov. 22nd still wearing the cannula, all attempts on leaving it off being followed by great dyspnœa. On Dec. 31st he expectorated a piece of ossified cartilage, and two smaller pieces on Jan. 3rd. This case was brought forward as an example of primary perichondritis of the larynx on account of the absence of all the usual exciting causes of this disease. No history of syphilis could be obtained. This patient was a well-nourished man, and anything but cachectic in appearance. There was no suspicion of phthisis, nor any history of a blow on the larynx. He had not had typhus or typhoid fever. Dr. Hall concluded that the man had had an attack of bronchitis (which was very probable, considering the nature of his occupation), that accompanying this he had laryngitis, and that the inflammatory mischief ultimately involved the perichondrium, and caused necrosis of the cartilage. The patient was still under treatment for dilatation of the stenosed larynx.—Dr. FELIX SEMON said the point of greatest interest in the case was the etiology. Perichondritis as a secondary affection was not rare; although it was not so common here as in Vienna, where such cases were frequently seen after typhoid fever, phthisis, and syphilis. On the other hand, nervous diseases of the larynx were much more common in this country. He was not quite sure that Dr. Hall's case was not due to syphilis; for he had seen tertiary syphilitic disease of the larynx as a solitary affection thirty years after primary infection; and when anti-syphilitic treatment was administered cure resulted. But cases of real primary perichondritis had, no doubt, been observed. Total immobility of one arytenoid cartilage and vocal cord in the median line he found to be not very rare and very valuable as distinct evidence of organic disease; and on this ground he urged the systematic examination of the larynx in all cases.—Dr. HALL said that Mr. Gould had seen the case, and agreed with him that there was no evidence of syphilis; and he could not accept Dr. Semon's view. He confirmed Dr. Semon's observations of the great value of the particular form of laryngeal paralysis he had referred to.

The meeting then adjourned.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting on April 5th, Dr. George Buchanan, President, in the chair,—

A paper was read on the Policy and Practice of Glasgow in the Management of Epidemic Diseases, with Results, by Dr. JAMES B. RUSSELL, Medical Officer of Health for Glasgow. Proper differentiation of function in the growth and development of the various organisations of a community is but slowly attained, especially as regards the care of the public health. The tendency is to try the police, poor law, charitable, and other departmental organisations as the origin of this function, or to levy a little service upon each in the hope of so meeting the entire round of sanitary requirement. Various stages are thus recognisable, and these were illustrated from the history of Glasgow with reference to epidemic diseases. The plague

was encountered, according to the lights of the time, by the municipal authorities. The outbreaks of typhus, for which the city was notorious, were dealt with by certain corporate bodies, who cared for the permanent poor, and by the magistrates, with the help of the charitable resources of the Royal Infirmary. The Scotch Poor Law Act of 1845 introduced another body, but the frightful epidemic of 1847 proved the essential weakness and inefficiency of a mixed system of parochial, charitable, and municipal treatment of epidemic disease. The Glasgow Police Act of 1862, renewed and amended in 1866, together with the Scotch Public Health Act of 1867, enabled the municipal authorities, educated by circumstances which were described, to develop by degrees their present policy and practice. They have now provided from rates hospitals of their own for fever and small-pox. Into these anyone living within the area of the rates, which extends to fully nine and a half square miles, is admitted free of charge. No person suffering from infectious disease has been treated as a pauper in a parochial hospital for ten years. Beyond this area 25 per cent. of the population lives under nine burghal jurisdictions, independent of that of Glasgow. But by appealing to the Board of Supervision to compel these bodies to appoint medical officers and sanitary inspectors, and by procuring the exclusion of their cases from the Royal Infirmary, hospitals have been erected by five of these authorities, and the remainder send their cases to the Glasgow municipal hospitals at a charge which covers current expenditure and interest upon capital. In this way the undoubted sanitary evils of such territorial subdivision of one populous community have been minimised. A general description of the routine of the daily practice of the Glasgow sanitary department was given. The special practice as applied to small-pox was fully detailed as being of peculiar interest to London. The securing of the thorough primary vaccination of the population is deemed of such supreme importance that, although the Scotch Vaccination Act vests the enforcement of its provisions in parochial boards, the Glasgow municipal authorities have *ex. gratiâ* assumed an additional supervision. Defaulters are traced with much more success and with little extra labour by the sanitary inspectors. As to revaccination, experience showed that it will be accepted by the mass of the population only in presence of small-pox. Under these circumstances the method at first adopted was to cause the inspectors to make out lists of persons who would consent, and then to send a medical man to perform the operation; but this delay was fatal to the effectual protection of any number. The majority refused to accept his services. The common-sense aspect of the situation was therefore seen to be this: If the lymph is carefully selected under medical supervision any intelligent layman can be taught to apply it as well as a medical man. The medical vaccinator in charge of the station for primary vaccination is therefore charged with the duty of selecting the lymph and teaching the epidemic inspectors. They always carry a stock with them, and on going to an infected house at once offer their services in the house and in the locality. Few recalcitrants are encountered, and protection is there and then secured. Compulsory removal to hospital was vigorously enforced. In the ten years 1871–80 there were 12,718 primary vaccinations by the medical vaccinator, and 9614 revaccinations by the staff. Small-pox was epidemic during the four years 1871–2–3–4, during which time 4328 cases were known to exist, of which 74 per cent. were treated in hospital, and 8730 revaccinations were recorded, or an average of fully two persons for each case. The total deaths in those years numbered 786, of which 67 per cent. occurred in hospital. The death-rate was never higher than 4·3 per 10,000 inhabitants, and averaged 3·8. Since 1875, when small-pox caused only two deaths, it has been in entire abeyance, there having been only twenty-five deaths in seven years. The Scotch towns have all in recent years been very free from small-pox; but a more correct estimate of the comparative immunity is obtained by taking in each case the epidemic acme. In Glasgow this was passed with only 4·3 deaths per 10,000 inhabitants in 1873. It reached 46·7 per 10,000 in Leith in 1872, 35·3 in Edinburgh in 1872, 32 in Greenock in 1873, 24·2 in Dundee in 1872, 14·5 in Aberdeen in 1872, 12·5 in Paisley in 1874, and 6·5 in Perth in 1872. The special service applied to the suppression of typhus was the prevention of overcrowding by night inspection of small houses, under local powers, averaging 41,000 per annum. This fever has been distinguished by the Registrar-General only since 1873. In the five years 1876–80 the death-rate from typhus was scarcely 1 per 10,000. In 1881 it was only ·82. The "fevers," as a whole, have steadily diminished in fatality from 16 per 10,000 in 1871 to a minimum of 4·34 in 1881. In the ten years 1871–80 they gave a mean death-rate of only 7 per 10,000, as compared with 20·24 in the preceding ten years. In the five years 1837–41 they maintained a mean of no less than 44½. The hospital treatment of the infectious diseases of children is encouraged by admitting mothers to nurse their children. Disinfection and washing of clothing and bedding is applied to all these diseases. Contrasting the last ten years with the preceding there is evidence of substantial improvement in all. In the death-rate from scarlet fever there is a fall from 13 per 10,000 to 10; in measles from 8 to 7; in whooping-cough from 15 to 12½. In conclusion it was pointed out that these results were obtained while this policy and practice were being thought out and slowly developed, so that they do not measure the full extent of the benefits which may reasonably be anticipated during the next ten years. In the discussion which followed the President, Dr. Thorne, Dr. Squire, Surgeon-General Murray, and Mr. Shirley Murphy took part.

A paper was then read on "Some Observations on the Pre-eruptive Stage in Small-pox, with History of Cases," by Mr. M. D. MAKUNA, late Medical Superintendent, Fulham Small-pox Hospital. Mr. Makuna stated there were two reasons why a distinct line of demarcation could not be drawn between the period of incubation and the initial stage. Firstly, no symptom is constant to usher in the initial stage; secondly, they are not definite in their duration. The symptoms complained of in 626 cases during the initial stage were as follows in point of frequency:—Headache, backache, and epigastric symptoms; symptoms of lassitude, languor, inability to walk about; cold and sore-throat; pains over the body, and general malaise. Other symptoms were constipation, rigor, faintings, stupor, delirium, pains over the precordia and syncope, constriction round the chest, epistaxis, photophobia, lacrymation, laryngitis, metrorrhagia, erythemia variolosa; in children, fretting, grinding of teeth, and convulsions. The duration of the initial stage in 626 cases, of whom 517 were vaccinated and 109 unvaccinated, was as follows:—One day in 123 cases; two days in 224 cases; three days in 128 cases; four days in 50 cases; prolonged in 79 cases; and no symptoms during the initial stage in 22 cases, of whom one was that of V. maligna. Twenty-two of these cases were of V. varicelloides; 316 of V. discreta; 45 of V. coherens; 203 of V. confluens; one of V. corymbosa; and 39 of V. maligna. In 12 cases the exposure to the source of infection was single and of short duration, the period of incubation being as follows:—Six days, with 7 days of initial stage in one case; 8 days in one case; 9 days in two cases; 11 days in one; 12 days in three; 13 days in two. It was 14 days in one case of three visits on three consecutive days, each visit lasting half an hour. The history of 90 cases of prolonged exposure, in whom the pre-eruptive stage was determined with a view to prove that the period of incubation is non-infective, was then related. The history is very interesting, and shows how the disease spreads by direct contagion. Had the period of incubation been infective, the secondary cases would have occurred coincidentally with the primary cases. The pre-eruptive stage in these cases varied from 8 to 23 days, and in 41 of them it was from 14 to 18 days. It was stated that when susceptible individuals are exposed continuously throughout the pre-eruptive stage to the source of infection the period of incubation is shorter than in those of single exposure. In his 14 cases it varied from 11 to 19 days. The quarantine of 14 and 16 days in two of these cases proved useless, as the pre-eruptive stage in one was 16 days and in the other 19 days, without any symptom of the initial stage.—In the discussion which followed Dr. Squire, Dr. Mackellar, Mr. Sweeting, and Mr. Shirley Murphy took part.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION

THE quarterly meeting of this Association was held on the 28th April at Bethlem Hospital, Dr. D. Hack Tuke presiding. At the opening of the meeting the President referred to the attempted assassination on the 16th ult. of Dr. Gray, the superintendent of the Utica Asylum, and a resolution of sympathy was unanimously adopted. The Association then resumed discussion upon the subject of

"Insanity as a Plea for Divorce," which had been introduced by Dr. Savage at the previous meeting. The interest of the debate centred round the recent case of Hunter *v.* Edney, in which the insanity prevented the consummation of the marriage, one or two other special cases being cited by Dr. Savage. As regards insanity before marriage, it seemed to be generally allowed that the question was met by the common law; while with respect to insanity supervening after marriage, it was felt that in the present condition of things it would be inexpedient to adopt in England a similar system to that existing in Saxony and elsewhere, under which insanity and certain other diseases were admitted as pleas for divorce. Dr. Weatherly then brought forward the subject of "The Supervision of Single Cases of Lunacy in Private Dwellings," which, he maintained, was insufficient and unsatisfactory, quoting in support of his views the statements advanced by him in his treatise on "The Care and Treatment of the Insane in Private Dwellings;" and an interesting discussion followed. Papers were also submitted by Dr. Bower, "On Employment in the Treatment of Mental Disease in the Upper Classes," and by Dr. Boyd, "On the Laws Relating to the Admission of Pauper Lunatics to Asylums."

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held in the Birmingham Medical Institute on April 5th, Dr. Malins in the chair.

Dr. BARLING showed a large Aneurism of the Arch of the Aorta at the junction of the transverse descending portions, taken from a young woman, aged twenty-four, who had died in the General Hospital. There was no history of syphilis, but severe pain had been experienced in the back for upwards of two years. Death eventually took place from hæmorrhage into the left pleural cavity. Considerable atheroma of the arch of the aorta was present, but little elsewhere. The bodies of the third dorsal vertebra were eroded, and portions of the third, fourth, and fifth ribs had disappeared. — Dr. BARLING also exhibited the Abdominal Aorta taken from the body of an old woman with senile gangrene of the left foot. The parts had separated at the ankle-joint, but the patient, who was suffering from chronic Bright's disease, gradually sank. The necropsy showed that the aorta was almost completely occluded by a laminated thrombus, which apparently commenced at the posterior part of the vessel. The channel left for the blood-current between the external part of the thrombus and the coats of the aorta was very small. The common and external iliac vessels on both sides were much narrower than in the healthy subjects, but not more markedly on the side affected by gangrene than the other.

Mr. BENNETT MAY exhibited the Bladder of a patient who had suffered from stricture and phosphatic cystitis for several years. The walls of the organ were nearly an inch thick, and imbedded in them were three small calculi, the largest being in size equal to a large horsebean. The sacs in which the stones lodged had but a small aperture of communication with the cavity of the bladder. Four months before death Mr. May performed lateral lithotomy to remove a phosphatic calculus, and in the hope of obtaining recovery by thorough drainage. There was no improvement, however, in the state of the urine, and on the healing of the wound (about ten weeks) fresh formation took place in the bladder. This on two occasions was cleaned out by the lithotrite and Bigelow's aspirator. At no time did washing out the bladder afford any beneficial effect. Death gradually took place with symptoms of heart clot.

Dr. MALINS, in showing a large Epithelioma removed by the Ecraseur from the Cervix Uteri, remarked that whatever the ultimate result of such cases might be, yet for a time marked improvement in the symptoms was effected by resorting to operative measures.

Mr. HUGH KER (Halesowen) read notes of two cases in which he had performed Ovariotomy. One patient did extremely well. The second died immediately the operation was concluded, from the effects of ether administered as an anæsthetic. The post-mortem revealed hydrothorax on one side of the chest. Mr. Ker discussed the propriety of administering chloroform in preference to ether in such cases, and stated his opinion that for the use of practitioners in the country chloroform was decidedly the most advantageous anæsthetic.

Mr. T. F. CHAVASSE read a paper entitled Practical Remarks on rapid Lithotrity, and gave details of a case in which he had removed 465 grains of a uric-acid calculus at one sitting. The patient, who was sixty-three years of age, made a rapid recovery.

Reviews and Notices of Books.

Aristotle on the Parts of Animals. Translated, with Introduction and Notes, by W. OGLE, M.A., M.D., F.R.C.P., sometime Fellow of Corpus Christi College, Oxford. London: Kegan Paul, Trench, and Co.

THE long list of natural philosophers whose successive inquiries have brought the science now termed Biology into its present advanced condition may be said to have commenced nearly 2300 years ago with Aristotle; for, though earlier writers had preceded him in some departments of zoology, yet the methodical description and methodical inquiry into structure and function on which modern physiology is built up have their earliest example in the writings of Aristotle. His penetrating intellect embraced all branches of the knowledge of his age; but it was, perhaps, in natural history that he whom Dante rightly calls the "maestro di colorche sanno" showed most clearly his superiority over his contemporaries and predecessors. It is fortunate both for the reputation of this great man and for the purposes of scientific comparison that the chief of his biological works have come down to us, although sorely mutilated and ravaged by time. Few things can give a better idea of the power of a great intellect than to see how far sagacity and industry could carry Aristotle in the attempt to solve the difficult problems of generation and life at a time when anatomy was in its infancy, and chemistry non-existent; when the simplest instruments, such as the thermometer, were not invented; and when no long record of previous observations existed to afford a sure basis for reasoning and point the way of future research. Yet the mere contemplation of a great achievement in the past, which has been entirely superseded by the discoveries of after ages, though it would always be an interesting subject of literary speculation, might be thought too remote to attract much attention in the present day. Dr. Ogle's book is of much more practical value than this. Not only does he furnish the reader with a version of the crabbed, obscure, and often corrupt Greek text, which leaves little or nothing to be desired either for faithfulness or lucidity, but he supplements his translation with a body of notes which form a mine of sound physiological information, and wide and various reading in the works of physiologists past and present, and prefaces it with an introduction explaining in the clearest manner the objects and method of the original treatise. Thus the book has a threefold interest. It provides the biologist with a record of the first serious attempt at biological investigation, the student of Aristotle with a clear exposition of, and a most pregnant commentary on, one of the most original and characteristic works of the philosopher, and the classical scholar with a model of what a translation ought to be—as free and idiomatic as an original work, yet as faithful as the most lumbering version that ever was made on the "word-for-word" principle. We do not wish to conceal from the reader that this lucidity is sometimes attained by giving what Aristotle must have meant, rather than by rendering exactly what his copyist has made him say, and that the faithfulness is faithfulness to the spirit rather than in all cases to the letter.[1] This applies, however, only to places where

[1] The latest translator of a foreign medical work, Mr. Dent, happily cites Voltaire's warning to translators:—"Malheureux faiseurs de traductions littérales! C'est là qu'on peut dire que la lettre tue!"—Preface to Billroth's Clinical Surgery, translated for the New Sydenham Society.

the text is either obviously corrupt or hopelessly unintelligible. Wherever Aristotle's text gives a plain meaning (whether right or wrong) Dr. Ogle clothes it in English which is as nervous and pregnant as the original, and follows it with admirable fidelity.

We would fain give our readers such an idea of this delightful work as would stimulate them to get it, and to keep it by them for frequent reference, that they may trace in Aristotle's text how the precise theories of modern days dawned vaguely and dimly on the patient inquirer even in the morning of civilisation, that they may compare, in his translator's copious and charming illustrations, the varying opinions and observations of the comparative anatomists of all ages of the world on almost every question of function and structure; and that they may see in the general or speculative parts of the treatise what ideas on the eternal questions of "fixed fate, free will, foreknowledge absolute," were elicited in this mighty intellect by a profound contemplation of nature, unbiased by the prejudices for or against theology, which so obviously warp the judgment of modern writers. But the space at our command is too limited to treat the question worthily. We can only promise those who will study Dr. Ogle's book that, however wide may be their acquaintance with comparative anatomy and biology, they will find something to improve it; and that however trained they may be in philosophical speculations, they will find something to exercise their mental powers; while the admirer of Aristotle and the lover of Greek literature will find a pure delight in so worthy a rendering of one of the master's greatest works. A comparison of this translation with others (such as Frantz's) will enable anyone who will take the trouble to form some idea both of the labour which our English translator has taken and of the success he has achieved.

Considering the limits of our space, however, we must content ourselves with two specimens of the work—one dealing with the general question of Aristotle's place in natural science, and the other an average sample of the work itself, and of the style in which the translator annotates it.

The following is extracted from pp. xi., xii. of the Introduction. After stating that in the controversy between necessity and final causes, Aristotle leans decidedly to the teleological view, Dr. Ogle proceeds:—

"We have now to inquire how it fared with Aristotle in his search after final causes—in his attempt, that is, to assign to each organ its proper function. It must be confessed that his success, as measured by what has been attained in modern times, was but small. In dealing, indeed, with the external parts he was more happy. His account, for instance, of the adaptation of the visible parts of birds to the varied modes of life in this class of animals is admirable, and reads like a chapter from Cuvier, whose unstinted praise was lavished on it. But with the internal organs it was otherwise ..... This was, indeed, inevitable. He was trying to solve the complex problems of biology while the ancillary sciences were yet unknown. Anatomy was still in its first infancy, physics embryonic, and chemistry hardly as yet conceived. What possibility was there that digestion or respiration should, under these conditions, find an adequate interpretation? This explanation of Aristotle's failure to assign to the several internal parts their several functions seems to me a sufficient and a true one. It is more usual, however, to account for it on other grounds, and to attribute it to his carelessness in the observation of individual facts, his hastiness in generalisation, and the imperfection of his method. A few words on each of these alleged causes of defeat; and first as to his supposed inaccuracy of observation. I cannot but think that this has been, to say the least, enormously exaggerated. ..... A very large proportion of his supposed mistakes have no other ground than the careless mode in which his writings have been studied. They are not mistakes of Aristotle, but mistakes of his critics. To give a few examples. It is laid to his charge that he represented the arteries as void of blood and containing nothing but air;[2] the aorta as springing from the right ventricle; the heart as beating in man and in no other animal, and as not liable to disease; the gall-bladder as situated in some animals on or close to the tail; reptiles as having no blood; and so on till the list might be swollen with almost every conceivable absurdity. In reality not one of the errors here enumerated was made by him. Still, I am far from denying that there are strange misstatements of simple facts to be found in his works. That there is but a single bone in the neck of the lion and of the wolf; that there are more teeth in male than in female animals; that the mouth of the dolphin is placed, as in rays and sharks, on the under surface of the body; these and the like are strange blunders, however they originated. This much, however, seems to me beyond question: these were not the personal observations of the same man who had noted the heart beating in the embryonic chick as a *punctum saliens* on the third day of incubation; who had distinguished the allantoidean development of birds and reptiles from the non-allantoidean development of fishes; who had unravelled, with fair accuracy, the arrangement of the bronchial tubes, and their relation to the pulmonary blood-vessels; and who had not only given zoological and anatomical details concerning the cephalopods which both Cuvier and Owen regard as 'truly astonishing,' but had described nine species of them 'with so much precision and happy a selection of their distinctive characters as to enable modern naturalists to identify pretty nearly all' (Todd's Cyclopædia, i., 561). Is it possible to believe that the same eye that had distinguished the cetacea from the fishes, that had detected their hidden mammæ, discovered their lungs, and recognised the distinct character of their bones, should have been so blind as to fancy that the mouth of these animals was on the under surface of the body? Although a statement to this effect occurs twice over in the Greek text, yet it is to me as incredible that it should have been actually made by Aristotle, as it would be that Professor Huxley should make a similarly palpable misstatement about an animal with which he was perfectly familiar. If it be asked how we can account for the presence of the erroneous statement in the text, we have not to go far for, at any rate, a very possible explanation. We have only to remember the strange vicissitudes to which the original MSS. of Aristotle's treatises are said to have been subjected. Hidden underground in the little town of Scepsis, to save them from the hands of the kings of Pergamus, who were then collecting books to form their famous library, and who, in so doing, apparently paid little regard to the rights of individual owners, they were left for the better part of two centuries to moulder in the damp—'blattarum et tinearum epulæ;' and when they were at least again brought to light, fell into the hands of Apellicon of Teos, a man who, as Strabo says, was a lover of books rather than a philosopher, and who felt no scruples in correcting what had become worm-eaten, and supplying what was defective or illegible."

We may remind the reader that these precious MSS. were acquired (whether by purchase or by simpler means) after his capture of Athens by Sulla, the Dictator, whose taste for Greek literature was notorious, and by him brought to Rome.

Thus, by an easy and doubtless a very natural explanation, many of the grosser blunders of the text are by Dr. Ogle very fairly transferred from Aristotle to the copyists or restorers of his text. Others he equally naturally attributes to the

[2] In another place Dr. Ogle speaks thus on this point:—"It is strange that, even up to the present day, it should be universally stated by writers on the history of physiology that up to the time of Galen all philosophers supposed that the arteries contained nothing but air. Even Cuvier, the great admirer of Aristotle, attributes to him this erroneous notion. Milne Edwards actually considers why it was that Galen attacked Erasistratus, rather than Aristotle, for holding this doctrine. Nothing can be plainer than that A. knew perfectly well that the arteries contained blood, and this chapter (bk. iii., ch. v.) is sufficient by itself to show that he did so. The mistake has, I imagine, arisen from two causes: Firstly, that writers have got into confusion by translating φλέψ into *vein*, whereas it means *bloodvessel*—i.e., artery or vein alike; and by still more absurdly translating ἀρτηρία into *artery*, whereas it means *trachea* [and, we would add, is so used in Latin writers when translating or adapting Greek works, as in Lucretius, "Factique asperiora fovas gradiens *arteria* clamor"]. Secondly, that the treatise 'De Spiritu' has been trusted as a genuine work of Aristotle; whereas it is shown, not only by its language but by its statements, to be most certainly spurious, and is in flagrant contradiction with the genuine treatises" (p. 201). For the proof of which statement Dr. Ogle refers to another note, where the fact is conclusively established.

fact that Aristotle was necessarily dependent for his knowledge of many of the animals, which he was, nevertheless, obliged to discuss, on the accounts of other persons, never having met with them himself, and having neither books of plates nor preserved specimens. A second source of error, however, Dr. Ogle is constrained to admit is Aristotle's "habit of hasty generalisation;" while yet he points out with indisputable truth that Aristotle's generalisations, though often false, were not puerile. "Among them are not a few that, with little or no modification, have stood the test of time, and some even that, restated by moderns in ignorance of his writings, have been claimed by themselves or their admirers as deserving of high credit," for numerous interesting examples of which we must refer the reader to the original. "There remains yet," says Dr. Ogle, "the faulty method. Mr. Lewes, in an interesting chapter, traces Aristotle's failure to the absence of verification from his method of inquiry." To some extent Dr. Ogle admits this, while pleading that "verification does not find its proper sphere in the early condition of a nascent science," and that Aristotle's biological work must be looked on by us, and was very probably looked on by him, as only provisional, and in proof of this he quotes the terms in which Aristotle himself speaks of another of his works, that on Fallacies (*περὶ σοφιστικῶν ἐλέγχων*). "I found," he says, "no basis prepared; no models to copy.....Mine is the first step, and therefore a small one, though worked out with much thought and hard labour. It must be looked at as a first step, and judged with indulgence. You, my readers, or hearers of my lectures, if you think I have done as much as can fairly be required for an initiatory start, compared with other more advanced departments of theory, will acknowledge what I have achieved, and pardon what I have left for others to accomplish." Noble words of a man whose immense superiority to all the science of his own time had only taught him a reverent modesty in the contemplation of the inadequacy after all of the achievements of his mighty intellect, and his untiring labour.

It is, however, as Dr. Ogle justly says in an eloquent passage towards the conclusion of his introduction, only in contrast with the achievements of modern biologists that we can speak of Aristotle's results as failures.

"Such a comparison might serve in estimating their claims, but not in estimating his. For it is the gap that separates a man from his predecessors, not that which lies between him and his successors, that gives the true measure of his position. Let anyone, then, compare Aristotle's physiology with that of the Timæus, which Plato, as Galen tells us, borrowed from Hippocrates, and which we may therefore fairly take to represent the general views of the most prominent authorities immediately antecedent to Aristotle. In passing, then, from the Timæus to Aristotle's treatises, one is conscious of passing into an entirely new order of things. In the former we have airy and fanciful constructions, in which imagination alone supplies the foundation, and in which facts, if introduced at all, are introduced merely as ornamental additions, in no wise essential to the fabric. In the latter the positions have been inverted. What was the ornament has become the foundation; what was foundation has been converted into ornament.....It was by thus altering the basis of inquiry, and substituting facts for theories, more than by actual observations, that Aristotle made a huge step in advance of his biological predecessors. And if, some two thousand years later, Bacon gained for himself an immortal name by insisting still more peremptorily upon the value of induction, it must be remembered that the instrument in his own hands was, at any rate, not more successful than in those of Aristotle."

Bacon, however, as Mr. Lewes has pointed out, went far beyond Aristotle in this—that the latter appeals to experience or observation merely as the ultimate and sole judge on matters of physical science, while Bacon insisted on the necessity of correcting the errors of observation or of the inductions founded on observation by crucial experiment.

We have spent so much time in the vestibule, that we have hardly any to spare for the edifice itself, but one specimen we must give of Aristotle's text and of Dr. Ogle's commentary. We have selected almost at hazard a portion of the chapter on the tongue (book ii., chap. xvii.), which will perhaps give as good an idea as any other of the character of the work in general. It is the last (17th) chapter of the second book:—

"The tongue is placed under the vaulted roof of the mouth. In land animals it presents but little diversity. But in other[2] animals it is variable, and this whether we compare them as a class with such as live on land, or compare their several species with each other. It is in man that the tongue attains its greatest degree of freedom, of softness, and of breadth; the object of this being to render it suitable for its double function. For its softness fits it for the perception of savours, a sense which is more delicate in man than in any other animal, softness being most impressionable by touch, of which sense taste is but a variety.[4] This same softness again, together with its breadth, adapts it for the articulation of letters and for speech. For these qualities, combined with its freedom from attachment, are those which suit it best for advancing and retiring in every direction.....What has been said explains why, even among birds, those that are most capable of pronouncing letters are such as have the broadest tongues,[5] and why the viviparous and sanguineous quadrupeds where the tongue is hard and thick, and not free in its motions, have a very limited vocal articulation. Some birds have a considerable variety of notes. These are the smaller kinds.[6] But it is the birds with talons that have the broader tongues, and consequently the greater aptitude for speech. All birds use their tongues to communicate with each other. But some do this in a greater degree than the rest, so that in some cases it even seems as though actual instruction were imparted from one to another by its agency.[7].....As to those oviparous and sanguineous animals, that live not in the air, but on the earth, their tongue in most cases is tied down and hard, and is therefore useless for vocal purposes. In the serpents, however, and in the lizards it is long and forked, so as to be suited for the perception of savours.[8] So long, indeed, is this part in serpents, that

[2] "That is, in aerial and in aquatic animals."

[4] "The sense of taste 'appears to have a greater analogy to touch than any of the others, and appears to be as universal, few animals being endowed with touch but what are most probably also endowed with taste' (John Hunter). The close connexion of touch and taste is shown in the fact, that while the nerves that minister to the other special senses are exclusively channels of their respective special sensations, those which minister to taste are at the same time nerves of ordinary tactile sensibility. This was, of course, unknown to A—— who rests his statement of the similarity of the two senses on the fact that they both require actual contact of the object with the body, whereas the other three senses are affected by distant objects (cf. D. A., ii., 10, 1)."

[5] "Meaning parrots. In these, the tongue is 'épaisse, charnue et arrondie; deux circonstances qui leur donnent la plus grande facilité à imiter la voix humaine' (Cuvier, R.A., i., 461)."

[6] "Small birds have a greater variety of notes and are more loquacious than large birds (Hist. An., iv., 9, 14). 'It is remarkable that only small birds properly sing. The Australian genus, Menura, however, must be excepted, for the Menura Alberti, which is about the size of a half-grown turkey, not only mocks other birds, but its own whistle is exceedingly beautiful and varied' (Darwin, Descent of Man, ii., 55)."

[7] "'With birds the voice serves to express various emotions, such as distress, fear, anger, triumph, or mere happiness. It is apparently sometimes used to excite terror..... The common domestic cock clucks to the hen, and the hen to the chickens, when a dainty morsel is found. ..... Certain cries serve as danger-signals, which, as the sportsman knows to his cost, are well understood by the same species and by others. The domestic cock crows, and the humming-bird chirps, in triumph over a defeated rival. The true song, however, of most birds and various strange cries are chiefly uttered during the breeding season, and serve as a charm, or merely as a call-note to the other sex' (Darwin, Descent of Man, ii. 51). Whether the voice of birds, besides expressing emotions and serving to give signals, can also be used by them for the communication of more complex intellectual ideas is still an open question. 'J'incline à croire,' however, says M. Edwards (Leçons sur la Phys., xiv. 115), 'que chez quelques uns de ces animaux, les hirondelles par exemple, une sorte de conversation peut s'établir entre les différents individus d'une même troupe.' In the Hist. An. (ix. 31, 32), it is stated that when a battle had occurred in a far-off country, all the crows disappeared from Attica and the Peloponnese, as though information of the banquet had been passed on from crow to crow."

[8] "The tongue is not protrusible in Chelonia, nor in crocodiles, but highly so in serpents and in lizards. In serpents it is slit into two at the end, and deeply so in lizards. It appears, however, to be an organ of exploration rather than of taste, for 'les serpents, tout en étant fort délicats

though small while in the mouth, it can be protruded to a great distance. In these same animals it is forked, and has a fine and hair-like extremity, because of their extreme liking for dainty food. For by this arrangement they derive a twofold pleasure from savours, their gustatory sensations being, as it were, doubled. Even some bloodless animals have an organ that serves for the perception of savours; and in sanguineous animals such an organ is invariably present. For even in such of these as would seem to an ordinary observer to have nothing of the kind, some of the fishes for example, there is a kind of shabby representative of a tongue,[9] much like what exists in river crocodiles."

The rest of the chapter, though of great interest, would exceed our limits to quote.

We have thus endeavoured to awaken the interest of our readers in a work remote indeed from the ordinary objects of their study and practice, but well deserving their attentive study. It is hardly creditable to our intelligence or our education that we should be ignorant of or indifferent to the works of our great predecessors, and we hail with pleasure the proof of the revived interest in such studies afforded by the publication of Dr. Payne's edition of Galen and by this translation of Aristotle's treatise. The profession, as well as the literary public, owe a debt of gratitude for it to him, and we trust they will not be unmindful of it.

OUR LIBRARY TABLE.

Diphtheria; its Cause, Cure, and how to arrest it. By ROBERT BELL, M.D. London, Glasgow, and Edinburgh: Blackie and Son. 1881.—The author, regarding diphtheria as in the first instance a local disease, contagious and not infectious, advocates prompt application of local antiseptic remedies. He employs for this purpose a paint composed of equal parts of strong solution of perchloride of iron, sulphurous acid, and glycerine of carbolic acid, every two hours, giving internally at the intermediate hours a mixture containing perchloride of iron, chlorate of potash, and sulphurous acid, whilst prescribing a full and generous diet. Since the adoption of these measures he has met with much success. His argument upon the nature of diphtheria is interesting. He traces the virus to impure drinking water, and supposes that the organisms of which the virus consists, adhering to the faucial mucus, are developed there by the "moist heat" of the part. He explains the immunity of some individuals by declaring that susceptibility to the virus is induced by enfeebled health and lowered tone. The inhalation of sewer air is then, in his opinion, a remote predisposing cause of diphtheria, by diminishing the vitality of the individual and rendering him fit to receive the diphtheritic poison, whether this be introduced by impure water or by direct contagion from another case. Amongst other depressing influences, he lays great stress on constipation, as tending to overcharge the blood with effete matter. We may perhaps have hardly done justice to Dr. Bell's arguments in this brief notice, and would refer our readers to the pamphlet itself, which is written clearly and to the point. There is furthermore considerable truth in his reasonings, which embody views that are in strict accordance with modern knowledge of septic disease.

On Cancer of the Breast. By THOMAS WILLIAM NUNN, F.R.C.S. Eng., Consulting Surgeon to the Middlesex Hospital. With Coloured Illustrations. London: J. & A. Churchill. 1882.—This is a quarto volume of nearly two hundred pages, and is intended to give a report of what Mr. Nunn has observed in the wards of the hospital, and of what is revealed in the post-mortem room, and to afford pathological data to enable the reader to weigh the value of opposing theories as to the nature of the disease. To show the want of well-ascertained facts, an abstract of the discussion on cancer at the Pathological Society is also appended. Remembering the special opportunity for studying cancer in all its forms afforded to the surgeons of the Middlesex Hospital, we turned to this essay with considerable expectation. But we must confess to some disappointment. Though the records of cases (sixty in number) are extremely valuable, the author has not given us the full benefit of his large experience. No help is offered in considering the question of operation for cancer of the breast. The statistics are in some particulars good, but in others vitiated by the fact that the clinical diagnosis has not been verified by microscopical investigation. The microscopical drawings by Mr. Berjean of sections prepared by Mr. Cole are beautifully executed, as are several of the coloured lithographs of the clinical features of the later stages of the disease.

Manual of British Botany. By CHARLES CARDALE BABINGTON, M.A., F.R.S. Eighth edition. London: Van Voorst. 1881.—Working botanists will be glad to welcome a new edition of this, to them, familiar book. It consists of a catalogue of the characters of all known species of European flowering plants and ferns, and its compilation must have been an arduous task. How thoroughly and admirably the learned professor of Cambridge University has undertaken the work can only be known to those who have frequent occasion to use it, and their appreciation of its merits is well shown in the fact of its having reached its eighth edition. Such a fact testifies also to the extent to which the scientific pursuit of botany is carried on in this country.

Percussion Outlines. By E. G. CUTLER, M.D., and G. M. GARLAND, M.D. Boston: Houghton, Mifflin, and Co. London: Trübner and Co.—This work consists mainly in a condensed summary of the results obtained by percussion in health and their application to the diagnosis of disease. It is largely based upon such works as those of plates copied from Weil. Dealing with but a small portion Weil, Ferber, and others, and is illustrated by a series of of the large subject of physical diagnosis, the authors have been enabled to treat their subjects thoroughly and systematically. Perhaps some day they may be induced to somewhat extend its limits; or, at any rate, to embrace the other methods employed, together with percussion, in arriving at an opinion as to abnormal conditions of thoracic and abdominal viscera. We commend this book to the notice of students and of teachers in clinical medicine. It is excellently printed, and the plates are worthy of the book.

The Year-Book of Pharmacy for 1881. Edited by LOUIS SIEBOLD, F.I.C., F.C.S. London: J. & A. Churchill. 1881.—This useful volume of reference contains abstracts of the chief papers relating to Pharmacy, Materia Medica, and Chemistry, contributed to the British and foreign journals during the past twelve months. So many new preparations are constantly introduced, that without some work of the kind it would be very difficult to keep *au courant* with the literature of the subject. As an example of the activity displayed in matters relating to chemistry and pharmacy, it may be mentioned that there are five papers discussing the alleged presence of a second alkaloid in jaborandi. The work is well done, and reflects much credit on the contributors.

Physics of the Earth's Crust. By the Rev. OSMOND FISHER, M.A., F.G.S. London: Macmillan & Co. 1881.—The nature of the agencies concerned in the production of

sur la choix de leur nourriture, ne paraissent pas avoir le sens du goût très développé; car lorsque ces reptiles ont commencé à ingurgiter leur proie, on peut leur faire avaler d'autres aliments, sans qu'ils s'aperçoivent du changement. Il suffit d'attacher ces corps entre les pattes postérieures de l'animal qu'ils sont en train d'avaler; c'est une opération que l'on pratique souvent dans les ménageries erpétologiques par un motif d'économie."—(M. Edwards, xi. 451.)

[9] "There is no tongue in this rudimentary fish (*lancelet*). That organ is often absent or very small in the typical members of the class; its basis, the glossohyal, when it projects at all into the mouth, is rarely covered by integument so organised as to suggest their being endowed with the sense of taste."—Owen, Vert., i. 411; see also Cuvier, An. Comp., ii. 681.

the earth's structure has always been problematical, and it is satisfactory to pass from the region of speculation to Mr. Fisher's application of simple mathematical reasoning to the investigation. After the subject of underground temperature has been considered, the author speculates about the condition of the earth's interior. Although no actual law of density has been determined beyond the fact that the surface density is about 2·5, and the mean density of the whole earth about 5·5, it is considered probable that the earth consists of a series of layers, each of equable density, the heaviest being nearest the centre. Since this is the form which a liquid spheroid would assume on cooling, and under the action of rotation and gravitation, it is concluded that the earth was once wholly melted. The author asks if the requirements of great rigidity as a whole may not be "satisfied by the hypothesis of a rigid nucleus, nearly approaching the size of the whole globe, covered by a fluid substratum of no great thickness compared to the radius, upon which a crust of lesser density floats in a state of equilibrium." He considers that the crust has become solid by cooling, the nucleus is solid by pressure, but is "potentially fluid," and that the intermediate layer "is not under sufficient pressure to be rendered solid, and is sufficiently hot to be fluid." On this hypothesis the depressions, elevations, ruptures, and contortions to which the earth's crust has been subjected are explained, as also the phenomena of earthquakes and volcanoes. The existence of a fluid substratum beneath the crust would enable lateral compression to produce depressions below, as well as elevations above, the datum level. The elevations of the crust must have corresponding downward protuberances into the substratum forming the roots of mountains. The process of denudation therefore may operate extensively without diminishing the altitude of the tract denuded; for as the surface is denuded it is raised by flotation. The explanations given of many other phenomena, such as the distribution and eruption of volcanoes, are probable and full of interest. It is to be hoped that the author will continue his investigations so as to confirm what he has already so ably written, and elucidate other unexplained phenomena.

Hints for Investors. By WALTER M. PLAYFORD. London: Crosby Lockwood & Co. 1882.—Mr. Playford has produced a very interesting and useful little work, which should be read by all investors, and particularly by the class, which is so largely represented in the medical profession, of those small capitalists who require to place small sums in stock bearing a fair amount of interest and safe withal. The hints given in this little volume with regard to the precaution which it is necessary to take with a view to secure a perfect limit of liability are especially valuable. The lamentable case of the City of Glasgow Bank—in the crash of which so many suffered irreparable loss, the number of the victims unhappily including several members of our profession—points the moral of a story of carelessness or ignorance, or both combined. The appendix contains, besides other useful tables and epitomes, one showing the quarterly average prices of consols from 1859 to 1882. Those of our readers who are interested in statistical science may remember a paper read by Dr. Farr before the Statistical Society of London a few years ago, in which he reviewed the fluctuation of prices, and drew the curious inference that the progress of the market value of our national stock had in the main been strictly commensurate, *pro rata*, with the progress which any actuary might have predicted long ago on strictly financial premisses. This fact, assuming it to be one, shows the sound principle on which works treating the value of money from the historical standpoint are based. We congratulate Mr. Playford on having produced a book which will be sure to interest, and, still better, help prudent and sober-minded investors.

New Inventions.

TRANSPARENT UNBREAKABLE HYPODERMIC SYRINGE.

MESSRS. THOMAS NICHOLLS & SON, of 258, Kingsland-road, N.E., have submitted to us one of their transparent unbreakable hypodermic syringes. The workmanship is of the best; and the advantages claimed for the cylinder are that the material of which it is made is not only as transparent as glass, but cannot be broken. It is impervious to fluids at the same time that it is unaffected by climate. The same firm manufactures syringes of all sizes, from those used for veterinary purposes down to those in ordinary use (six minims) by medical men.

CUXSON'S IODOFORM WOOL.

MESSRS. CUXSON & CO. of Wednesbury have forwarded to us a sample of their iodoform wool. It is thoroughly impregnated with iodoform, which gives it a faint yellow colour and characteristic smell; and it is thoroughly absorbent, and appears to be well calculated to answer the purposes of such a preparation.

SURGICAL TOW.

WE have received from Messrs. Stephenson and Travis, 12, Hopwood-street, Liverpool, a sample of the surgical tow they are supplying to the medical profession. This material is now largely used in cases where the more rigidly perfect antiseptic dressings cannot be applied, and we can thoroughly recommend this special preparation on account of its softness, uniformity, and purity. It has many uses.

THE ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE BY RESEARCH.

To the Editor of THE LANCET.

SIR,—The following sums, amounting altogether to more than one thousand pounds, have been already subscribed to the general purposes of the Association for the Advancement of Medical Science by means of Research. Our first expenditure will be in reprinting and circulating the numerous expository and instructive statements which have appeared on the methods and objects of scientific medicine. We must also have sufficient funds in hand to meet promptly any attack from outside upon the invaluable labours of competent investigators; and, thirdly, we hope to be able to assist such researches by the material aid as well as by the moral support of the united profession. Subscriptions may be forwarded to me, or to the Hon. Secretary, Dr. Pye-Smith. Thanking you for the welcome with which you have received the new Association, I am, Sir, your obedient servant,

SAMUEL WILKS, Treasurer.

72, Grosvenor-street, W., May 3rd, 1882.

	£	s.		£	s.
The late C. Darwin	100	0	Mr. Bryant	5	5
Mr. Bowman	105	0	Dr. Owen Rees	10	10
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Dr. Brunton	21	0	Dr. Geo. Johnson	10	10
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Dr. Herbert (Paris)	5	0	Messrs. Macmillan	10	10
Dr. S. Binger	10	10	Dr. Theodore Williams ...	1	1
Dr. Andrew	10	0	Dr. Quain	21	0
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Dr. Stevenson	1	1	Sir Erasmus Wilson	100	0
Mr. Spencer Wells	52	10	Mr. J. Hutchinson	10	10
Sir Geo. Burrows	25	0	Sir Wm. MacCormac	5	5
Dr. Brett (Watford)	1	1	Sir Henry Thompson	50	0
Mr. Morton Smale	1	1	Dr. Haldane (Edinburgh) ...	5	5
Mr. Joseph Clarke	0	10	Mr. Lister	50	0
Dr. Wilks	25	0	Dr. Gerald Yeo	25	0
Mr. Spottiswoode (P.R.S.) ...	10	0	Dr. Acland	25	0

THE LANCET.

LONDON: SATURDAY, MAY 6, 1882.

THE profession will learn with much gratification that the Association for the Advancement of Medical Science by Research, which was formed on March 28th, has been fully organised and its officers definitely appointed, whilst the list of subscriptions given on another page, which was read at a meeting of the Executive Committee on the 2nd instant, is a sufficient proof of the earnestness with which its founders intend to carry out its objects. The precise aim of the Society is therefore a question of much importance, and the manner in which it proposes to make its existence and energy felt will have great interest for every member of the profession. The Association is formed with the view of "bringing the legitimate influence of the medical profession more effectively to bear on the promotion of those Exact Researches in Physiology, Pathology, and Therapeutics, which are essential to sound progress in the Healing Art." This is explicit enough, and means, in other words, that the members of the Association are determined to give their support and encouragement to the experimental method, for the advancement of the medical sciences. As in other sciences, so in these, observation alone cannot be relied on for true progress, but must be assisted and corrected by experimental research. The influence for good or for evil of such an Association must be very great, and it behoves its members, and more especially its Executive Committee and Council, to have clearly in their minds the plan of work by which its objects can be best attained. There must be no doubt, no indecision, and no vacillation, or more harm to the advancement of medicine will be caused than probably this generation can set right. The Association has our best wishes and congratulations; but we cannot shut our eyes to the fact that many difficulties and anxieties attend its action. The rules which have been accepted by the Association give but little information as to the methods by which it purposes to fulfil the mission it has taken on itself, except that the Council will encourage original research, and seek to remove any hindrances which may appear to them to be standing in the path of medical knowledge. In undertaking such duties the Association is peculiarly well timed, for at no period in the history of medicine in England has an organisation with this object in view been so urgently required. We note with great satisfaction the influential character and position of its founders and list of officers, as comprising the most eminent men in our profession, as well as many of the most illustrious leaders and teachers of science in this country; and we have no doubt that every member of the profession who appreciates that advances in practical medicine must proceed, *pari passu*, with progress in the sciences on which it is based, will give it his thorough support.

In the first place, the Association will be brought into relation with the State, inasmuch as the Legislature has taken upon itself to regulate and control experimental research. The authoritative opinion of such a body in regard to the advisability of a proposed series of inquiries, and the skill and professional status of the inquirer, must have great weight, and be given every consideration. A scientific authority is now constituted, to which, if he should think fit, the Home Secretary can always apply for an opinion, and he may thus relieve himself to a certain extent of the onus of deciding on a scientific question, which, from the nature of the case, he cannot always be expected to follow in all its bearings. We shall hope that political expediency will no longer exert an influence on the granting or not of certificates for experiments, but that scientific reasons only will be allowed to guide the decision.

The Association can also do much for the encouragement of original work by giving advice to scientific inquirers and experimenters as to the probable value of a proposed research, and the best means of prosecuting it, and it would be within its power to suggest the limits beyond which a series of experiments should not be carried. In this manner it would afford much valuable aid in the advancement of the medical sciences, and become a protection to individual experimenters against unscrupulous persecution. If it were clearly known that the experiments had been undertaken with the express sanction and cordial support of the Association but little heed would be given to the hard words and malicious insinuations of those who, in their blind opposition to scientific research, do not hesitate to asperse the characters and misrepresent the motives of everyone engaged in or supporting such inquiries. Its obligations towards the profession will be fulfilled by seeing that the advance of medical knowledge is not delayed by any unnecessary opposition to honest and well-judged scientific work, and it must steadily bear in mind that physiological and pathological researches, which at first sight may appear to have but little bearing on practical medicine, are afterwards often found to be important steps in its onward march.

The position of such a Society towards the lay public is most important, for it will be expected by them to give a reason for its existence. It will have to satisfy the public that every precaution against unnecessary suffering is taken by all scientific investigators, that an effectual barrier has been raised against any abuses under the pretence of medical research, and that sympathy with animals and a detestation of cruelty in every form are as consistently and regularly manifest in the life and work of the medical scientist as of any other member of the community. It will also be expected to educate the public as to the necessity for the prosecution of original investigations if medicine is not to come to a standstill or possibly retrograde, whilst the advantages of such researches in the interests of man and the lower animals must be as persistently urged and repeated as are the statements to the contrary by the prejudiced opponents of the experimental method. The defence of this line of inquiry will now be left by the profession to the Association, and it is most important for the Executive to recognise the character of the work that will be laid on its shoulders. The multifarious duties to which the Association must give attention have necessitated our pointing out their extent and limits.

We hope that it will confine itself to the encouragement of research by its official support and its advice, and that no

attempt at endowment will be made. Grants by the Royal Society and by the Scientific Committee of the British Medical Association are quite sufficient for this purpose, or, if not, they should be increased. There is no need for another body to take part in this work, and we venture to think that many subscribers whose names appear in the list would withdraw their support if the active endowment of research becomes a feature of the new Society. Its constitution has been well planned, and the composition of the Council, whilst representing all the great medical bodies, secures a strong and efficient working staff in the members specially nominated by the Presidents of the Colleges of Physicians and Surgeons. There will necessarily be many changes in every year, and a requisite variation in the Executive will be secured, without the abruptness and consequent risk of dislocating the machinery of the organisation, and arresting or retarding its work, that would be liable to happen if the members had to choose direct representatives. The wisdom and direction of a few eminent men deeply interested in and acquainted with experimental research in all its bearings cannot be secured by a popular vote, and on these the future success of the Association must largely depend.

WE do not seek to place these names or the order of their intellectual prominence, but in the connexion which recent events have created for them. The reception of M. PASTEUR at the French Academy may hereafter be held to have signalised an epoch in the history of the relations of science and philosophy. We have lately lost CHARLES DARWIN, and as yet no adequate estimate of the magnitude of that loss has been placed before the thinking public. It is a curious coincidence that, without a thought of the imminent sorrow which has now fallen on the brotherhood of science, we were placing before our readers, as DARWIN died, a brief series of articles designed to show how the light his genius has thrown on the works of Nature and on the method of progressive development has cleared away the clouds by which false science had obscured the horizon of hope and shut out the domain of faith from the ken of the *savant*. We strove to suggest—we had not space to demonstrate—the way in which the Darwinian doctrine of evolutionary development gave a solid scientific basis for belief in the existence of a God in the universe and a soul in man. CHARLES DARWIN discovered a new phase of truth; and truth is one and indivisible—no one of its aspects can reflect destructively on any other. We do not place too high a value on the discovery made by the man who has just been laid to sleep in the mausoleum of England's worthies, when we say that it equals, probably even, in a sense, transcends, the discovery of the law of gravitation by NEWTON. However this may be, it is noteworthy that, following close upon the death of DARWIN, comes the noble declaration of M. PASTEUR, in the oration custom compelled him to make as the successor of M. LITTRÉ, that faith in the infinite is not incompatible with, but actually grows out of, a precise knowledge of the facts of Nature so far as her mysteries have been explored. M. PASTEUR struck straight home to the heart of the secret cause of that scepticism which prevails among a certain school of scientists and philosophers when he said, "M. LITTRÉ's faith in Positivism arose (in part, at least) from the mental quietude it offered on the great metaphysical questions. Negation as well as doubt incommoded him. AUGUSTE COMTE extricated him from both by a dogmatism which abolished all metaphysics." All really active minds must take refuge in dogmatism if they would find rest. Of the brothers NEWMAN, one, after passing through a long series of phases of faith, suffered what has been alleged to be an eclipse of his faith. This energetic thinker actually took refuge in dogmatism of the type of, yet differing in many important particulars from, that which COMTE supplied to LITTRÉ. The other brother, being brought to the same strait in his intellectual life, sought rest in the dogmatism of the Roman Church and theology. The human mind in its higher development soon wearies of doubt, and negation can afford no resting-place. Those who try to lay on their oars and believe nothing find that they are compelled to keep moving, or they must avowedly drift either into the current of Faith or away to the whirlpool where Reason itself is engulfed in an abyss of hopelessness. This is why the pretended—or pretending—Materialists in philosophy, particularly in our own department of science, are so noisily antagonistic to the tenets and principles of religion, and bestow so much pains in the endeavour to destroy what they assert has no existence! They *must* maintain their position by actively struggling against the tendency to *believe* which lies deep down in the inherited nature of man. We repeat, there is no rest without dogmatism—the dogmatism which abolishes the metaphysical, or the dogmatism which elaborates and embodies faith. M. LITTRÉ found rest, of a sort, in Comtism; CHARLES DARWIN found rest in the faith of Nature's God; not the inner, reflected, recept of the Deity, which M. PASTEUR described as the "enthusiasm"—or GOD within,—but the Unknown, because undiscovered, GOD the Cause and Creator, which the temple of Nature, as DARWIN saw and worshipped in it, denotes and requires, wherein the innermost and most mysterious chamber is filled with a cloud that veils and yet reveals the Presence towards which the human consciousness in its abiding sense of incompleteness yearns. No more wonderful and inexplicable fact has challenged the scrutiny of thoughtful minds during the last twenty years than the failure to recognise that the postulate of evolution is creation. *Ex nihilo nihil fit*, or if anyone regards that as a mere platitude, he cannot deny that to *evolve* any organism, however simple, from matter which has not previously been organised, is impossible. The primæval germ of nature is a necessity of the hypothesis of evolution. CHARLES DARWIN felt this to be the fact, and he was *not* an Atheist, a Materialist, or an Unbeliever.

WE are fast accumulating experience to guide us in estimating at their true value the various new operative procedures for the treatment of diseases of the kidney. Nephro-lithotomy may, without exaggeration, be spoken of as an established and successful surgical operation. The cases suitable for it are those in which the stone is of small, or, at any rate, moderate size, and single, while the kidney is not disorganised. In such cases the operation is curative in its effects, saves from torturing pain and probable death, and in itself, when carefully carried out, is not a very dangerous procedure. In other cases, where the kidney is quite disorganised, as a result of a stone in its pelvis, the operation is still valuable as a palliative, such an experience, however,

is not now. It has been also demonstrated that the kidney can be readily and with great safety explored through a wound in the loin, and that even incisions into its structure, especially when that is disorganised, do not materially add to the severity of the operation. And thus we are now able to apply the great principle of drainage to the kidney, and in cases of sacculated kidney the result of calculous pyelitis, or in cases of strumous nephritis, the pus and decomposing urine can be drained off, and the patient freed from the pain and risks incident to its retention in the kidney or passage into and through the other urinary organs. To this may be added the employment of antiseptic injections; and there can be no doubt that the operation of nephrotomy for the purposes of exploring and of drainage will occupy a distinctly valuable place in surgery. About this there seems even now to be hardly room for serious differences of opinion. But in approaching the question of nephrectomy many very grave questions at once arise. Three points, at least, have been established—viz., that the operation is practicable, and that the patient may survive it, and even enjoy good health; that it is one attended with grave and immediate danger to life, from hæmorrhage, wound of neighbouring viscera, and suppression of urine more or less complete; and that it may be accomplished in all cases through an abdominal incision, and in many cases through a lumbar wound. The questions which still await an answer are, Are the dangers so grave as to render nephrectomy totally unjustifiable? What are the cases in which the operation is justifiable? Which method of operating is the better, or is each best adapted for certain cases? Should nephrectomy be preceded by nephrotomy? Granting, for the moment, that nephrectomy is established as a theoretically justifiable operation, the proper selection of cases presents very serious difficulties. On the one hand there is the obvious advantage of operating early, as soon as the disease of the kidney is recognised, before the surrounding tissues are largely implicated, and whilst the constitution is not seriously impaired as the result of pain and exhausting discharge, and the opposite kidney and the rest of the urinary tract are free from similar or secondary disease. Such are the cases most suitable for the operation from one point of view. But a surgeon may well hesitate before he exposes a patient to an operation which presents such grave immediate results, and only the more desperate conditions may be held to warrant so heroic a remedy. Certainly the operation must not be lightly recommended, and it will have to show a fair proportionate success in advanced cases before it can properly be applied in the more favourable because less advanced cases. The chief point to bear constantly in view in determining the suitability of any given case for the operation is the functional condition of the other kidney; if that is seriously impaired, the operation may with confidence be negatived. Two points of practice come out in the cases recently communicated to the Clinical Society; one is that patients should not have morphia or opium in any form administered to them after the operation; and the other is that partial excision is of no value. In two of the cases there is some ground to suppose that a dose of morphia had some share in the fatal result. In the third case a simple nephrotomy was converted into a fatal operation by excision of part of the kidney; such a procedure seems to possess no advantages, and to be attended with serious evils, when carried out as this was. The partial separation of the kidney would not have seriously interfered with its nutrition—the part would not have sloughed. Its removal did not get rid of the entire disease or facilitate that measure, while to place a ligature on the presenting part of the kidney and cut off all beyond it entirely prevented all drainage of the suppurating organ, and possibly had an evil reflex influence on the opposite kidney: the better course to have followed in such a case would have been to remain content with free drainage of the organ. The lumbar and abdominal methods of operating have each its advocates. In favour of the abdominal incision are the facts that through it *all*, and not a *limited few*, kidneys can be removed; that it is the more truly surgical procedure, for it allows the operator to see and to know better what he is doing, and to deal with each complication more readily; that it offers less danger of risk to the immediately adjacent organs; and that the pedicle can be more easily and safely secured. On the other hand it necessitates a double opening in the peritoneal cavity. It has been further urged in support of the lumbar method, that it allows of the operation being completed through the incision made for simple exploration of the kidney. Intra-peritoneal operations, however, have of late years lost so much of their danger, and a previous lumbar incision is of so much value for purposes of drainage, that possibly neither of these objections will be found to hold. Whether nephrectomy should ever be performed as a primary operation, and if so in what cases, is an open question; but the safety and extreme value for purposes of diagnosis of a simple incision through the loin down on to the kidney offer strong inducements to the surgeon to practise it before proceeding to more severe and dangerous steps.

THE New York State Medical Society has taken Medical Ethics into its own hands, and has passed a law that sanctions consultation with any person holding a legal qualification to practise—that is to say, with eclectics, homœopaths, &c.—so long as they are licensed. This idea is not original; it will be remembered by our readers in connexion with the addresses of Dr. BRISTOWE and Mr. JONATHAN HUTCHINSON at the Ryde meeting. These gentlemen knew the sentiment of the profession too well to put the idea into the form of a rule of ethics or of practice. But the New York State Medical Society is more bold, and has passed the law. But it has reckoned without its host. The whole feeling of the profession in the States is against the step taken by the Society, unless it be some New York medical papers, which we may assume to be under the guidance of those who lead the Society. We need not say that the law is against the code of the American Medical Association, which, while enjoining all reasonable liberality in meeting intelligent regular practitioners that will be acceptable to the patient, adds—"*but no one can be considered as a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma*, to the rejection of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

This is the language of common sense and of loyalty to science, and evidently expresses the feeling of the profession

in America, as it does that of the profession here. It is important to notice the fundamental error at the root of the Regulation of the New York Society. It assumes that the mere qualification to practise is a guarantee of everything necessary; as if there were no need for a code of ethical principles between medical men. This is a great mistake. The standing of the profession in society and the respect in which it is held by the nations have their explanation as much in the high character of the ethical principles by which the conduct of its members is regulated as in the intellectual and scientific nature of their calling. A great part of medical ethics has always had reference to the mutual relations and obligations of medical men. So that the mere fact of men being equally qualified in the eye of the law does not dispose of the moral questions which arise in practice, one of which is the amount of respect due to those who assume the truth of exclusive dogmas, and swear by one teacher, to say nothing of the absurdity of the dogma and the discredit of the teacher. Our law very properly provides that the holding of any particular theory of medicine by a candidate shall not entitle an examining board to reject him. In free countries men must be allowed to believe things which to most of their fellows seem absurd. But that is no reason why the bulk of the profession should not act in defence of its dignity, or why they should not be at liberty to decline professional consultation with those who would lower the tone of medical science. Rather is it the very reason why medical Societies should do what it is scarcely to be expected that the common law should undertake. We are assuming that the case is clear, that the shibboleth adopted is something inconsistent with the broad light of medical experience and common sense. This is the case of homœopathy, which is practised in its purity now by scarcely any of those who trade upon the word, and yet which is nothing if it is not exclusive. Its chief disciples have shown a readiness to abandon everything but the name, which has a sort of trade value among a certain section of the public. Such being the discreditable position of homœopathy we do not wonder that the professional opinion of the United States is strongly against the action and the ethics of the New York Medical Society.

AT the recent meeting of the Metropolitan Asylums Board protests were read from the Clapham and Wandsworth local authorities against the concentration of small-pox cases from all parts of London in South London. Here has happened what has occurred elsewhere in the metropolis in connexion with the big small-pox hospitals of the Metropolitan Asylums Board—namely, that each hospital, when occupied with patients, has formed a centre of diffusion of the disease among the people residing in the neighbourhood. We have this information respecting the small-pox hospitals in South London on no less authority than that of Dr. BRISTOWE. The Hampstead and Fulham Hospitals on the north of the river Thames have been closed by courts of law on the ground of this extension of small-pox from the buildings when used for the purpose for which they were erected. A like imputation attaches to the Homerton and Stockwell Small-pox Hospitals. The South London small-pox hospitals are in no better case, and notwithstanding the assurance of Dr. COLLINGRIDGE of the harmlessness of the small-pox hospital ship *Atlas*, moored off Deptford, we have good reason for believing that the ship is not less mischievous to the inhabitants living nearest to her on shore than the fixed small-pox hospitals have been. Indeed, if similar measures were taken in the courts of law against the as yet untouched northern hospitals and the southern hospitals, including the *Atlas*, we have little doubt that results would follow such as befell the Hampstead and Fulham Small-pox Hospitals. But the Metropolitan Asylums Board are so enamoured with the original scheme planned for these hospitals, that they appear determined to defend them, using all legal means available to this end to the utmost. We have not heard of any means adopted by the Board itself to ascertain what is really the position of these hospitals with regard to the public health, and how the difficulties asserted in every case, and confirmed in two of the cases by court of law, are in future to be overcome. If pressed on this matter, the Asylums Board seem to think they act sufficiently in referring to the Local Government Board, and that Board complacently extinguishes itself by referring the whole question to a Royal Commission, heedless of the fact that it is responsible for the administration of the Public Health Law, as well as of the Poor Law. And here rests the knot of the difficulty. Small-pox in London has been dealt with by the Local Government Board as a Poor-law and not as a Public Health matter; and the metropolitan population have been sacrificed to a piece of office routine, notwithstanding that it is specially equipped for public health matters. The Metropolitan Asylums Board has even to be content, in questions which involve so largely medical considerations, with such medical assistance as the Local Government Board thinks fit to lend it, in the form of the Poor-law medical inspector for the metropolis, and is debarred from the assistance that it might derive from an independent medical officer. Need we wonder, then, that this Board has drifted hopelessly into confusion about its small-pox hospitals?

AT the time of the trial of the unhappy man, LAMSON, we expressed our opinion that the conviction was in every sense just; and now that the sentence has been carried out, we are sorry to have to repeat that in the present state of the law no other course was possible, for if anyone is deserving of capital punishment, the calculating, sordid, deceitful poisoner is so especially. We have often urged that there are many degrees of murder, and that the law does a wrong in making no distinction between the man who takes another's life in a fit of what may almost be called righteous indignation, and the wretch, dead to every moral sense, who tenders a poison while fawning lies are on his lips. The confession which the culprit is said to have made is satisfactory, in so far as it shows that the medical experts were right in the conclusions which they drew; and although the evidence left no reasonable room for doubt, the confession has made assurance doubly sure, and has taken away any cause for suspicion that the least injustice has been done.

The execution of LAMSON, could he but have realised the fact, was an undoubted kindness, for the agonies of a man who is condemned to years of remorseful solitude must be too terrible to be realised by any but the sufferer. Whether the execution has been beneficial to the nation at large is

another matter. The main object of punishment is, we take it, not to wreak vengeance on a criminal so much as to secure the welfare and protection of good citizens; and we cannot but ask, as we have asked before, whether it can be good for the people at large to have their attention directed for weeks at a time to the horrid duties which devolve upon the hangman and those associated with him in carrying out the supreme sentence of the law? We should answer, Decidedly not. "Vengeance is mine, I will repay, saith the Lord," and it will be a good thing for society when the vengeance aspect of punishment is disregarded, and attention is directed solely to the protection and safety of well-doers. If a man is unfit to enjoy freedom, if he disregards the sanctity of life and the rights of property, he must be condemned to slavery, and it is difficult to suggest any form of punishment which can take the place of penal servitude.

Annotations.

"Ne quid nimis."

CONVOCATION OF THE UNIVERSITY OF LONDON.

MANY subjects of interest are to be dealt with at the approaching annual meeting of this body. We have elsewhere referred to the action proposed to be taken with reference to Gresham College in the resolution which will be moved by Mr. Macdowall and seconded by Dr. E. B. Baxter. The annual committee, having also considered the subject of increased representation of the Senate, submit resolutions to the effect that the chairman of Convocation should be, *ex officio*, a member of the Senate, and that the Senate be requested to ask for a new charter, under which vacancies in the number of Fellows in the University should be filled up as follows:—One-third directly from the Crown, one-third on nomination by the Senate, and one-third on nomination by Convocation. They also advise that all ordinary members of the Senate should, as heretofore, be appointed members for life. At the same meeting the adjourned debate upon certain proposed modifications in the constitution of the Fellowship of the University will be proceeded with; and a motion will be made by Mr. Hennell to establish the nomination of senators by Convocation, as a general rule, alternately from the Faculties of Arts and Laws and the Faculties of Medicine and Science. This motion has been doubtless called for by the events of the last nomination made by Convocation, when the return of a medical member was jeopardised by the active support given to an Arts graduate. The Committee's report also contains the resolution of the Senate with regard to the Preliminary Scientific M.B. Examination; a statement on medical education by the Senate to the Medical Acts Commission, and other items of special interest.

AFFECTION OF THE HEART IN DIPHTHERIA.

WITH the exception of the diphtheritic endocarditis described by Bouchut (to a large extent, if not altogether, a product of the scientific imagination), the chief alterations found in the heart after diphtheria affect the muscular substance. Granular degeneration of the fibres has been especially conspicuous in cases of death with the symptoms which it is customary to refer to cardiac paralysis, although the precise significance to be attached to this degeneration has been hitherto a matter of considerable doubt. A series of cases of this character has lately been very carefully studied by Leyden of Berlin. In all, the alterations in the muscular substance were so marked, and of such a character, as to justify the opinion that they were really inflammatory. Multiplication of the intermuscular nuclei, and the occurrence of degenerated foci, the result of the atrophy of these nuclei, constitute its special characters, these alterations being usually accompanied by the fatty degeneration of the muscular fibres themselves. But the two changes do not correspond in degree, or even in distribution. To this affection must be ascribed the extravasations in the substance of the heart occasionally noted, its soft consistence, and the dilatation which it undergoes. Leyden conjectures, indeed, that the cardiac failure, usually regarded as paralytic in nature, may be in reality the effect of these muscular changes. Their relation to the process of the general disease is a question of much interest, on which, unfortunately, Leyden has little light to throw. He has failed to find micrococe in the altered tissue, but as he has also failed to find them in the kidney (in which their occurrence has been lately demonstrated), it seems still possible that bacteria may underlie the carditic as well as the nephritic changes. The former resemble closely those which occur after typhus fever and some other acute specific diseases. A very important practical question is the character of the symptoms which are produced by the change, and by which its presence can be recognised during life. They may occur during the height of the disease or during convalescence, and it is particularly during the latter that their detection is so important, since they indicate a grave danger, which may, to some extent, be met by treatment. The symptoms are chiefly those of cardiac weakness, but to certain of them Leyden attaches especial significance. One of these is the galop-rhythm of the heart sounds, which he regards as one of the surest indications of dilatation of the left ventricle, with irregular tremulous contractions. Vomiting is another frequent symptom, and always, from this cause, indicative of imminent danger. It is not a direct symptom, but is probably due to an irradiation of the disturbance to other parts of the pneumogastric nerve. The tendency to this cardiac failure constitutes a serious objection to the use of depressant remedies, such as salicylate of soda, especially to pilocarpin, and to the repeated use of any emetic.

SLAUGHTER-HOUSE REFORM.

THE Society which has recently been established in London for encouraging reform in methods of treating and slaughtering of animals intended for human food is being well supported, and will, no doubt, become in a short time an influential and useful organisation. Dr. Richardson, who at the first meeting was solicited to act as president, stated that the objects of the society included the advocacy of model public slaughter-houses; proper sheds for the housing of cattle previous to slaughtering; the most painless modes of killing; rooms for cleanly methods of dressing the carcases; rooms for preserving the flesh after it has been dressed; the most careful inspection of the flesh to make sure that it is free from disease, in imitation of the Jewish system; and more systematic training of the persons employed in the slaughter-house. The work of the society is supported by an effective committee, and has received the approval of the Duke of Westminster, Lord Shaftesbury, Sir John Lubbock, the Bishop of Exeter, and many other persons of influence. It has before it a success which even vegetarians may help to support, since their principles are promoted by nothing so much as humane progress, and if its success should go no further than what the president named as its limit, the initiation of legislative action from a standard suggested by voluntary effort, it will lead to an enormous advance on the system which at present prevails.

DEATH DURING TOOTH-EXTRACTION.

AN accident is reported in the daily papers which is very liable to occur during the operation of tooth-extraction if care is not taken to remove each drawn tooth from the mouth; and it is well that the notion should not get abroad amongst the public that this accident is more common when "gas" is given than without. It seems that the patient, a boy of ten, at Chorley in Lancashire, had seven teeth extracted while under the influence of "gas"; and that he was observed suddenly to change countenance, put his hand to his throat, and immediately afterwards he died. It was found that a tooth had become impacted in the larynx, and so caused spasm of the glottis and asphyxia. The upper bicuspid teeth are most likely to cause this accident; and both surgeons and dental surgeons would do well to remember to put the forefinger of the left hand behind the blades of the forceps, so that in case the tooth slips out of their grasp after extraction, it may shoot forward out of the mouth, and not go backwards. Another very important point to observe in all cases of extraction, with or without an anæsthetic, as already noticed, is to be certain that each tooth or root is out of the mouth before proceeding with another operation. And whilst on this point, it may be well to observe that it is dangerous to allow elderly patients to retain very loose teeth in their mouths, as they may drop out during sleep and "go the wrong way." The elevator, or "punch," is a most useful instrument; but should be applied with extra caution when operating under an anæsthetic, as the tooth is more likely to elude the grasp than when forceps are applied. In the absence of further details of the case cited, it is impossible to do more than sympathise with the parents and with the dentist on account of this untoward result of an uncommon accident; but it must not be called a "death from nitrous oxide gas."

WHITE LEAD MANUFACTURE.

ATTENTION has been called to the considerable increase in the number of persons engaged in the white lead manufactories at the East-end of London who become victims to plumbism in its various forms. Agitation on this subject is by no means a new phenomenon. It has frequently been ventilated in these columns; indeed, so deeply did we feel the importance of it that in 1874 our Sanitary Commissioners reported on it specially. But though attention has persistently been drawn to the matter, little has been done towards the prevention of the evil. After each agitation the manufacturers and inspectors of these lead works remain for a time on the alert, and the necessary precautions are adopted to protect the workpeople; but in course of time this vigilance is relaxed, and cases of lead-poisoning become more and more numerous till public indignation is again aroused. The process of white lead manufacture is divided into six stages: the making the lead plates, the exposure of these plates to the fumes of acetic acid, the removing the deposited carbonate of lead from the plates, levigating and grinding it, drying it, and finally packing it. The most dangerous parts of the work are the picking off and handling the crusts from the lead plates, and the packing. In the latter process the dry and brittle white lead is removed from the drying-room in baskets carried on the heads of the operatives to the packing-room, where it is broken up and placed in barrels ready for export. The dust arising from the highly dried white lead speedily covers the clothes, hands, and face, and, unless respirators are worn, is inhaled. Women and young girls are mostly engaged in this part of the business, and this is the reason why females suffer apparently more than males from the effects of lead. The same holds good with regard to the removal of the white lead from the plates, this also being performed by females. The least dangerous part of the business—the levigating and grinding whilst wet, and the drying, which is not dangerous if respirators are used—is performed by men. Although instances of extreme susceptibility to the influence of lead have come under our observation, and cases have occurred where severe lead colic has developed a few days after work had been undertaken for the first time in a white lead manufactory, still there is no doubt that if the regular precautions were strictly enforced, together with the suggestions made by our Commissioners relative to the wearing of strong leather gloves by those who are obliged actually to handle the white lead, and the necessity of wearing respirators during the packing process, the cases of plumbism occurring in the course of the year from these causes would cease to be a matter for consideration. But to attain such a result constant supervision must be exercised over the operatives. It is not enough for the manufacturer to provide, and the inspector of factories to approve of, the general regulations and appliances, if they are not obeyed or used. An overseer ought to be appointed to each factory, whose sole duty it should be to keep a vigilant eye constantly on the operatives, and insist on the precautionary measures being carried out to their fullest extent. Neglect or disobedience should be punished by fine or dismissal; and in order to ensure the requisite degree of vigilance on the part of the overseer, his wages in great measure should depend on the immunity attained during the year. Lastly, in all cases where it can be proved that the ordinary precautions have not been rigorously enforced, and cases of plumbism have in consequence been of frequent occurrence, the manufacturer should be proceeded against, and if the case were proved, heavily fined. It is only just that those who by carelessness or greed have brought about such a mishap should be made to suffer in some shape and degree, whilst it is but fair to the ratepayers, on whom the responsibility of ultimately maintaining the broken-down victims of plumbism falls, that the chief offenders should also feel the burden.

THE UNIVERSITY OF LONDON AND GRESHAM COLLEGE.

CONVOCATION of the University of London will be invited at its meeting on Tuesday next to pass a resolution framed by the Annual Committee to the effect that "the Senate be requested to consider the desirability of urging the claims of the University before the City of London Livery Companies' Commission, with special reference to Gresham College." The report of the committee gives the reasons that have weighed with them in making this request. The history of Sir Thomas Gresham's foundation is related, from which we learn that by his will, dated 5th July, 1575, he bequeathed the Royal Exchange and some adjoining hereditaments in two moieties, one to the Corporation of London, and the other to the Mercers' Company, on the condition, amongst others, that the former body pay £50 a year each to four persons to read lectures in Divinity, Astronomy, Music, and Geometry, and the latter the same stipend to serve lecturers in Law, Physic, and Rhetoric. He also left his house in Bishopsgate for the lecturers to "inhabit, study and daily to read the said several lectures." For a long time the provisions of the will appear to have been carried out in a very perfunctory manner, and it was not until 1843 that the present Gresham College was built. Without traversing the whole ground covered by the Committee in their summary, suffice it to say that they are of opinion that the foundation was intended to be the nucleus of a University and a College. If this be so, it is time that the University of London should look to its interests in the matter; and its attempt at rescuing this noble foundation from the fate that has pursued it during the three centuries of its existence will, it is hoped, be successful.

FALSE MEDICAL CERTIFICATES.

A MEDICAL practitioner and his unqualified assistant were recently prosecuted and convicted at Swansea for making and issuing a false medical certificate of the cause of death for the purposes of the Births and Deaths Registration Act of 1874. Such prosecutions, instituted under Section 40 of this Act, have been unfortunately somewhat numerous of late, and the above-mentioned case presented few new features, except the joint prosecution of the practitioner and the unqualified assistant. The deceased patient had been solely attended during what is legally understood as his last illness by the unqualified assistant (who lives four miles from his employer), but after death a medical certificate was furnished to the local registrar, which bore the signature of the registered practitioner, and set forth that the deceased had been attended by this practitioner. It was not denied that the signature was genuine, and that the body of the certificate was filled in by the unqualified assistant. The magistrates had therefore no difficulty in deciding that both of the defendants were guilty of the imputed offence against the Act. The magistrates are reported to have assigned as a reason for dealing leniently with the case that it "was the first prosecution under the Act." It is possibly the first prosecution at Swansea, but, as we have said, such prosecutions and convictions have been frequent of late. The defendants were each fined in the mitigated penalty of £1 and costs. In face of the continued assertion of ignorance of the serious light in which the law regards this offence, it may be well once more to repeat the words of the clause which says that a person shall for such "offence be liable on summary conviction to a penalty not exceeding ten pounds, and on conviction on indictment to fine or imprisonment with or without hard labour for a term not exceeding two years, or to penal servitude for a term not exceeding seven years." The professional aspect of these cases is scarcely less important than their legal aspect. We have received a letter from the registered medical practitioner in question, in which he endeavours to show that he was technically not guilty of the offence, because the certificate was issued without his knowledge, although he does not deny the signature. Our correspondent admits, however, in his letter that he is in the habit of furnishing to his unqualified assistant, living four miles away, forms of medical certificates signed in blank. We have no hesitation in condemning such a practice in the strongest terms. It is not only dangerous as inevitably leading to the commission of offences against the Registration Act, but it is antagonistic to the best interests of the profession. Such independent practice of unqualified assistants is one of the main causes of the large amount of unqualified medical practice in many parts of the country, which both the public and the profession have good reason to desire to see suppressed.

FORCED FEEDING IN PHTHISIS.

WE recently called attention to the proposal of M. Debove to treat cases of phthisis attended with vomiting, &c., by forced feeding with the stomach pump, and the subject was again brought before the Société Médicale des Hôpitaux on April 14th by M. Dujardin-Beaumetz, who had at first met with little success, in consequence, he believed, of having employed raw meat and eggs. M. Debove, on the other hand, transforms the food into an impalpable powder before administering it to his patients. This M. Beaumetz has given in a daily quantity of 200 grammes, which correspond to 600 grammes of raw meat, and he has obtained by this means the same results as M. Debove—progressive fattening and general amelioration, especially in hysterical patients with almost intractable vomiting, which ceased completely under the new method of treatment, although if ordinary feeding by the mouth were attempted the vomiting reappeared at once, as if excited by a pharyngeal spasm, the result of the passage of the food down the throat. M. Debove stated that all the phthisical patients treated by this method were doing admirably, fattening in a remarkable manner, some having gained twelve kilogrammes in a month, and most of them seemed in a fair way towards recovery. One of the patients, however, having obtained permission to go out for a couple of hours, under the promise of taking no alcohol, had employed the time in such pleasures of another kind that he returned with absolute retention of urine, and the necessary surgical treatment resulted in his death. The subsequent post-mortem examination showed that the large cavities in the lungs were lined with granulations, and in full process of healing.

THE USE OF NARCOTICS AND THE QUESTION OF RESPONSIBILITY.

THE miserable but just fate of Lamson will not be altogether without its use if it convinces people who play with narcotics, whether alcohol or morphia, that they do so on their own responsibility. We may acknowledge the kindness of those who sought to found an argument for change of sentence on the abuse of morphia. But we cannot admire their wisdom. Where is such a doctrine to end? If it is to be accepted the law must take immediate charge of the thousands of people who are muddling their heads all day long with one poison or another—cocculus indicus, alcohol, morphia, bromides, chloral, and absinthe. The State will not at present forcibly compel the most incorrigible drunkard to abstain. Even some bishops prefer freedom to sobriety—if one can speak soberly of the freedom of an habitual drunkard. The clear doctrine for the present is—first, that men who use such things are responsible for using them, and for all that follows on their use; and, secondly, that in using them, the most predominant quality manifested is that of selfishness—a determination to have their sensations gratified, or their miseries drowned by what they know injures and impoverishes them, and all belonging to them.

VITAL STATISTICS: THE FRENCH CENSUS.

THE returns of the French Census taken at the close of last year have not yet been given in a complete form, but enough has been published to show that the population of the country is not increasing. The annual number of births was only 920,177 during the last three years, as compared with 944,576 for the three previous years; while the average rate of deaths had risen from 801,956 per annum to 858,337. It is true that there was a slight increase in the rate of marriages—from 278,094 to 279,035; but as the rate of births had decreased, it is evident that a considerable proportion of these marriages proved sterile. Upon the other hand, the annual number of illegitimate births had increased from 66,854 in 1877 to 68,227 last year.

URÆMIA.

IN a case of scarlatinal nephritis, with uræmic convulsions, Dr. D'Espine, of Geneva, employed copious venesection with most satisfactory results, and he caused a chemical analysis of the blood to be made. The facts ascertained are of considerable interest. The urea was found to amount to the enormous proportion of 3·3 parts per thousand of blood and 6·5 per thousand of serum. This is about twelve times the normal quantity, and twice as much as was present in a case of uræmia examined by Picard (1·5 of urea in 1000 of blood). Of course this does not prove urea to be the cause of the symptoms. Würtz and Chalvet failed to find any increase of urea in the blood, an observation which is of

more significance than the innocuity of injections of urea (ascertained by Feltz and Ritter), since the latter may be explained by the rapidity of elimination. The last-named observers, it may be remembered, ascribed the symptoms to the excess of potash salts, and in the case of D'Espine these also were increased to about three times the normal quantity. Moreover, two-thirds of this were contained in the serum, the normal relation being thus inverted, since almost all the potash in normal blood was contained in the globules. D'Espine is inclined therefore to regard as the explanation of uræmia—(1) An accumulation of potash in the serum, derived from the uneliminated detritus of red corpuscles, the destruction of which may be facilitated by the accumulation of urea in the blood. (2) To an enormous increase of the arterial tension in consequence of the direct action of the dissolved potash salts on the endocardium and on the nerves of the heart. The venesection acted probably in a complex manner, by eliminating some of the toxic agent, and by suddenly lowering the arterial tension.

THE MURCHISON SCHOLARSHIP.

THE examination for the scholarship in memory of the late Dr. C. Murchison has lately been conducted by Drs. Wilks and Bristowe, on the nomination of the Royal College of Physicians of London, and Mr. Charles F. Coxwell, of St. Thomas's Hospital, has gained the proud distinction of being the first Murchison scholar. Mr. Sidney H. C. Martin, University College, obtained the second place, and was specially commended by the examiners. It seems peculiarly fitting that the first place on this occasion should have been taken by a student from St. Thomas's, where Murchison's teachings and example still exercise an all-powerful influence. Out of fifteen gentlemen who had entered their names twelve presented themselves for examination, and the examiners speak very highly of their knowledge of clinical medicine. The examination was divided into three parts; an oral, in which recent pathological specimens, museum preparations, and microscopic sections were examined and reported on by each candidate; a written, in which three questions on clinical medicine were set; and a practical, in which each candidate was required to examine, write a report and comment on, two cases in the medical wards of St. Marylebone Infirmary. In addition to these three specially selected cases of typical diseases were shown to each candidate in rotation, and on these he had also to furnish a written commentary. An examination in clinical medicine would scarcely be more thorough or better planned, and as this is the first occasion on which the examination has been held, some interest is attached to the method in which it was thought best to conduct it. We may add that Mr. Coxwell will have the congratulations of many beyond his own school when they are reminded of his courtesy and kindness as one of the Assistant Under-Secretaries at the late meeting of the International Medical Congress.

SELF-DRUGGING.

THE Right Hon. Mr. Chamberlain might not have lived to be, or refuse to be, Chief Secretary to the Lord Lieutenant of Ireland if he had not promptly taken an emetic after swallowing a dose of the wrong drug on a recent occasion of illness. If a "leap in the dark" is bad in policy, a reckless administration of medicine taken hurriedly or carelessly from a family chest is bad in self-management. It is a practice which needs to be denounced in the strongest terms this private use of drugs by lay persons. The family medicine chest is a mine of mischief. Better far to wait a few hours for relief in sickness than court death by hasty or ignorant use of potent remedies—or poisons, as chance might render them.

THE ROYAL COLLEGE OF VETERINARY SURGEONS.

ON April 26th a deputation, organised by the President of the Royal College of Veterinary Surgeons, and representative of the numerous interests and sciences connected with or related to veterinary science, as well as of that science itself, waited upon the Lord President of the Privy Council, to urge the claims of the Royal College of Veterinary Surgeons to recognition by Government in the matter of obtaining a suitable building. The deputation was introduced by Earl Fortescue, who, after a few preliminary remarks, called upon Mr. Fleming to address his lordship. Mr. Fleming, having referred to the memorial already placed before Earl Spencer, adduced various arguments in favour of the object of the deputation, and spoke of the great value of veterinary science to medicine, surgery, and the collateral sciences. The Lord President was subsequently addressed by Professor Acland, Professor Flower, Dr. Wilks, and others. Earl Spencer, in reply, acknowledged the force of the remarks which had been made by members of the deputation, but thought there were great difficulties in the way of compliance with their request. The matter should, he said, be placed before his colleagues, and he would only be too glad to be able to promote the interests of a science which was of great importance to this country and the colonies.

THE CHOLERA AND THE POLITICAL CRISIS IN EGYPT.

ACCORDING to Dr. Fauvel, whose paper was read at the last meeting of the Académie des Sciences, it is very probable that the cholera, which worked so much havoc among the pilgrims who went from India and other parts of the Eastern world to Mecca last autumn, would have spread to Europe if the crisis in Egyptian politics had occurred a week or two earlier than it did. The best safeguard against the spread of the fell disease is the quarantine which the returning pilgrims are compelled to undergo at El Ouedj, some distance from Suez. Information having reached Alexandria last autumn that cholera was prevalent at Mecca, the pilgrims were debarked at El Ouedj from the 29th of November to the 10th of February, and it was only when all signs of disease had disappeared that they were allowed to leave for home. It was just after this that occurred the "revolt of the colonels," and the regiments which proved the most insubordinate were the very ones which had been appointed to guard the pilgrims. If the outbreak had occurred sooner they would have let the pilgrims go, and thus the disease might well have spread westward.

MEDICAL CHARGES.

A MEDICAL claim of a somewhat unusual character was settled in favour of the plaintiff, in the Queen's Bench Division of the High Court of Justice, on April 29th. The case was tried by Mr. Justice Manisty and a common jury. The plaintiff was J. F. Porter, M.D. Dub., and M.R.C.S. The defendant was a colour merchant and the father of the boy for whose treatment Dr. Porter claimed £64 11s. The charge was for medical attendance, consultations, necessaries, &c., supplied to the boy at the plaintiff's residence, from Jan. 13th, 1881, till Jan. 30th. The boy, travelling on the Great Eastern Railway with some other boys, opened the window and fell out on to the line, and was seriously injured. He was taken to the plaintiff's house, as the nearest doctor's, by the station-master of Coburn-road and the inspector. It was thought unsafe to remove the lad, and the plaintiff said he would charge three guineas a day and consultation fees. The defendant disputed his liability and the reasonableness of the charges. He said the credit was given to

the railway company, against whom an action was still pending. The peculiarity of the case was the detention of the patient in the doctor's house, and his charge for such accommodation. The jury, after an absence of half an hour, found a verdict for the plaintiff for £52 10s.

THE ABERDEEN CHAIR OF NATURAL HISTORY.

ABERDEEN UNIVERSITY may be congratulated on the appointment of Professor Alleyne Nicholson to its Natural History Chair. As a student and graduate in Edinburgh fifteen years ago, Alleyne Nicholson carried off the highest honours both in science and in medicine. He has since filled the Chairs of Natural History in Toronto, in Newcastle, and in St. Andrews; he succeeded Dr. Carpenter as Swiney Lecturer in Geology in London, and took the lectures in Zoology in Edinburgh University during the illness of the late Sir Wyville Thomson. Professor Nicholson's numerous original contributions to natural history, especially in the department of palæontology, are well known, and by his educational publications, for use in schools and colleges, he has exerted a wide influence in giving popularity to the subjects of zoology and geology. The duties of the chair in Aberdeen include a winter course of lectures on geology and zoology to the students in Arts, and in the summer session a course in zoology to the students of medicine. The appointment of so able a teacher, and of one who enjoys so high a reputation as an author, cannot fail to prove a strength to the northern University.

THE LONDON WATER-SUPPLY.

COLONEL BOLTON, R.E., the Water Examiner, remarks of the Thames water at Hampton Court, Molesey, and Sunbury, before being filtered for delivery to the metropolis, that it was "bad in quality, from the 1st to the 7th ult., when it slightly improved, and became good on the 13th, in which condition it remained for the rest of the month." The water in the river Lea was "in a bad condition during the month." Professor Frankland, reporting as to the filtration of the several companies' water drawing their supply from the Thames, says that the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies, with the exception of the Grand Junction Company, delivered water inferior in quality from that sent out the preceding month. "The filtration was also inefficient, the Chelsea Company's sample being the only one that was clear and bright, while those of the other companies were slightly turbid. The Lea water delivered by the New River and East London Companies also showed a slight deterioration in quality, but both waters were sent out in an efficiently filtered condition."

ANÆSTHETIC MIXTURES.

ONE fluid ounce of pure chloroform, half a fluid ounce of pure ethylic ether, and half a fluid ounce of pure or absolute ethylic alcohol (sp. gr ·795) is perhaps the most usual form of combination of these active anæsthetic substances. The substitution of methylene bichloride for the chloroform is an improvement, and Dr. Richardson in his early experiments in the introduction of methylene bichloride used it successfully in combination with absolute ethylic alcohol without ether; and with more success still when pure methylic was used instead of ethylic alcohol. His formulæ were: Methylene bichloride, one fluid ounce and a half; absolute ethylic alcohol, half a fluid ounce. Or, methylene bichloride, ten fluid drachms; absolute methylic alcohol, six fluid drachms. The last named mixture, though a little slower in action than methylene itself, is considered by Dr. Richardson to be "the safest known anæsthetic when the methylic alcohol is absolutely pure."

SCIENTIFIC FINANCE.

WHEN Mr. Gladstone has been in want of money hitherto his main resource has been to tax incomes. For the future it would seem that not only are incomes to be taxed, but additional taxes are to be imposed on those who spend their incomes rationally. Mr. Gladstone's extra impost on carriages falls with great severity upon the medical profession. The doctor's carriage is a necessity for him, and in no sense a luxury, and if Mr. Gladstone persists in imposing this tax the medical profession ought certainly to be exempted, for the same reasons that the shepherd's dogs are exempt from the dog-tax. The amount of increase of the tax is enormous. To increase a tax by as much as fifty per cent., and to put such an increase upon machines which are especially designed for economising human labour, shows a singular lack of resource in our great financier. The extra tax is for the purpose of lightening the burdens of proprietors in connexion with highway rates, but to put an extra tax on the lightest vehicles because the roads are ground to bits by heavy ones, is not unlikely to compel persons to use their carts for locomotion instead of carriages, and should this occur the objects of our scientific Chancellor will certainly not be attained.

INTRA-PLEURAL INJECTION OF AIR.

NOT very many years ago a proposal to inject air into the pleural cavity as an aid to effectual aspiration would have been regarded with ridicule if not with horror. But we have learnt that air *per se* is harmless; it is the matters it may contain that are so provocative of mischief. At any rate, there will be found in our last issue the report of a discussion at the Royal Medical and Chirurgical Society where this proposal, put forward by Mr. R. W. Parker, received sober and serious consideration. The subject was so well debated that there is less need to dwell on it here, particularly as the practice itself has been adopted in a very few cases. Its adoption, too, is not likely to be frequently called for, except where a free incision is thought unadvisable. The plan however is ingenious, and has a distinct *rationale* at its foundation.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

ON Tuesday last, the 2nd inst., an election for examiners in the College of Surgeons took place. The nine outgoing examiners in the Surgical Court were opposed by the unusually large number of eight candidates—viz., Messrs. Gogarty, Kilgarriff, Ormsby, Frank, Hayes, Fitzgibbon, Coppinger, and Abraham. The only change was Mr. Croly, who was replaced by Mr. Abraham. For the Examinership in Midwifery there was no opposition, and Messrs. Henry Croly, W. Smyly, and John Cranny were re-elected. The three outgoing examiners in general education offered themselves for re-election, and were opposed by Mr. Frank Davys, who replaced Mr. Morton.

REPORTED CHOLERA AT VARNA.

FURTHER news from Varna does not entirely explain the report of cholera occurring among a group of pilgrims landed at that port on their return from Mecca. We have the denial of physicians attached to the Ottoman sanitary service, and we have the statement that the authority for the asserted occurrence of cholera rests with the Bulgarian sanitary officer at the seaport; and the further statement that the Bulgarian sanitary administration there wishes to discredit the Ottoman sanitary service. We must still wait for the decision to be arrived at by the medical commission sent from Constantinople, with the approval of the foreign representatives there.

MEDICAL MISSIONS.

ON Monday last the Right Rev. John Miller Strachan, M.D., was consecrated at Lambeth to the bishopric of Rangoon. Dr. Strachan is by no means the only medical bishop, Dr. Callaway, Bishop of Kaffraria, Dr. Stirling, Bishop of the Falkland Isles, and Dr. McDougall, formerly Bishop of Labuan and Sarawak, now Archdeacon of the Isle of Wight, being medical men. One of the subjects arranged for discussion at the Church Congress, which is to be held this year at Derby, is that of medical missions. On this point we think the Church of England missionary societies would do well to take a hint from some of the Nonconformist bodies, who have been hitherto more ready than themselves to recognise the value of medical missionaries proper—that is to say, unordained, whose time is fully occupied in healing the sick, leaving to the clerical agent the task of forming and ministering to the native church. Whilst congratulating the members of our profession who have attained episcopal dignity, we cannot help expressing our opinion that the medical and clerical elements had better be kept distinct with regard to their respective functions in the Missionary Church. Though powerful auxiliaries, it is as well in all undertakings that the clerical and medical departments should keep to their especial duties, whilst working harmoniously with each other.

POISONOUS BULLETS.

A GERMAN journal refers to a discovery made by a M. Gros of Paris, which tends to throw some light on the complaints which were made (but not seriously inquired into) during the Franco-German War, as to the use of poisoned bullets by the combatants on both sides. M. Gros explains that the construction of the modern breech-loading arms causes the bullet to convey with it a portion of the hydrocyanic acid which the explosion of the powder has caused to be accumulated in the barrel. Even if poisoning to a mortal extent does not take place, it is remarked that the healing of wounds is materially retarded by this circumstance.

RUMOURED PLAGUE IN PERSIA.

IT is again rumoured that plague has appeared in the district of So-uj-Bolak, a province of Azerbeidjan, North-Western Persia, and again the rumour is denied by official telegrams from Teheran. It is, moreover, suggested that a prevalence of typhus and typhoid fevers in an adjoining district may have given rise to the rumour. So-uj-Bolak and district was a seat of plague in one of the earlier of the recent appearances of the disease, and since that time suspicions appear to have been entertained on the Turko-Persian frontier of the entire freedom of the district from the disease.

MR. GLADSTONE.

WE are able to state that the rumour as to the unsatisfactory condition of Mr. Gladstone's health is unfounded, and that it is incorrect that the right honourable gentleman has been advised to curtail his parliamentary duties.

AT a meeting of the General Council of the University of Glasgow, on the motion of Dr. J. A. Campbell, of Garlands, seconded by Professor Young, it was unanimously agreed to appoint a committee for the purpose of obtaining the assistance of graduates and others in endowing a chair of Pathology in the University.

CONVOCATION of the University of London meets on Tuesday next, the 9th inst., the day preceding "Presentation Day."

DR. FRANCIS BROWN, writing in the *Boston Medical and Surgical Journal*, calls attention to the fact that so long ago as 1629 an attempt was made to found a medical school in America. His authority for this is the following passage from the first general letter issued by the Massachusetts Bay Company to Endicott, under date of April 17th, 1629:—"We have entertained Lambert Wilson, chirurgeon, to remain with you in the service of the Plantation; with whom we are agreed that he shall serve this Company and the other planters that live in the Plantation, for three years, and in that time apply himself to cure not only of such as came from hence for the general and particular accounts, but also for the Indians, as from time to time he shall be directed by yourself or your successor and the rest of the Council. And moreover he is to educate and instruct in his art one or more youths, such as you and the said Council shall appoint that may be helpful to him, and, if occasion serve, succeed him in the Plantation; which youth or youths, fit to learn that profession, let be placed with him; of which Mr. Hugesson's son, if his father approve thereof, may be one, the rather because he has been trained up in literature; but if not he, then such other as you shall judge fittest."

A QUESTION was asked in the House of Commons on the 29th ult. about the recent occurrences in the Sheffield Small-pox Hospital. Mr. Dodson, in reply, stated that the resident surgeon, the cook, and a ward servant have recently been attacked with the disease, but none of the nurses, as had been asserted. The disease seems to have been much modified in these cases; but how revaccination, which has proved so valuable among nurses and attendants in London small-pox hospitals, should have failed so egregiously in the Sheffield Hospital was not clearly explained. The cook, it appeared, had had small-pox after primary vaccination, and so was exempted from revaccination, against all experience.

THE report of Dr. Tate, the Medical Superintendent of the Lunatic Hospital for the county and town of Nottingham, records progress in the work of this institution. The admissions for the year 1881 were 13; the readmissions 3, making a total of 82 under treatment during the period. The discharges have been 15, of which 5 recovered, 3 were relieved, 2 left without any recorded improvement, and 5 died; leaving 67 in the hospital at the end of 1881. The recoveries have been uniformly those of cases which were placed under treatment in an early stage of the recognised mental disease.

A PETITION was recently presented to the Judicial Committee of the Privy Council by the Native Guano Company, asking for a prolongation of a patent granted on June 15th, 1868, to Messrs. Sillar and Wigner, for an invention of "improvements in deodorising and purifying sewage, and making manure therefrom." Their lordships, in the result, thought the patentees had obtained sufficient remuneration for their invention, and that it was not a case in which they could properly advise Her Majesty to prolong the term of letters patent.

WE are glad to observe that Mr. Butlin has prepared his lectures on Sarcoma and Carcinoma for publication. The advances made in the knowledge of the intimate structure and development of new growths of late years, the practical importance of which is by no means slight, have been very considerable. Not very long ago the microscope was regarded as of no value to the practical surgeon; nowadays we have learnt to appreciate its importance as a prognostic and diagnostic aid, and in no department is this better exemplified than in the class of Tumours.

A VIGOROUS onslaught upon homœopathy has been made by Dr. Johannes Rigler, of Berlin, in a pamphlet that is now before us. The first chapter analyses with much truth and satire the life of the founder of the system, and contrasts him unfavourably with Paracelsus. The other chapters deal with the rise and progress of homœopathy among practitioners and the public, from which we learn that there are now between 4000 and 5000 of the former on the globe, more than one-half practising in America.

THE latest list of successful candidates for the membership of the London College of Physicians is remarkable, inasmuch as it includes the name of the first native of India who has obtained that diploma. Mr. A. Chattopadhya had already secured the licence of the Edinburgh College of Physicians, as well as that of the Faculty of Physicians and Surgeons of Glasgow. The University of Calcutta also claims him as an alumnus in Medicine and Surgery.

AT the scientific meeting of the Zoological Society held on Tuesday, Professor Flower referred to the fact that at the previous gathering of the Society a communication from the late Mr. Darwin, probably the last contribution to zoological science made by the great naturalist, was read. Professor Flower then spoke of the transcendent value of Darwin's work, and of the great loss sustained by the Society and the world by his death.

THE annual oration and conversazione at the Medical Society of London, which took place on Monday last, proved a complete success. The orator, Dr. Symes Thompson, chose for his subject the congenial topic of the "Medical Society of London," sketching in a manner well appreciated by the audience the origin and growth of this Society, which has now been established for 110 years.

AT Ontario a "Provincial Board of Health" has been established by a special Act of the Legislature. The members of the Board, seven in number, are appointed by the Lieutenant-Governor in Council, hold office for two years, and are eligible for re-election. The chairman will receive a yearly salary of 400 dollars, and the secretary one of 1000 dollars.

THE King and Queen's College of Physicians in Ireland have issued a notice and an address to Parliament, testifying their approval of the "Infectious Diseases Notification (Ireland) Bill, 1882," introduced by Messrs. Meldon, Brooks, Findlater, and Moore.

THE Medico-Legal Society of New York has, by a committee, reported on the needed changes in the functions and office of coroner. The committee are substantially agreed that the coroner's jury should be abolished, and an intelligent and thorough medical examination be substituted.

THE following gentlemen have been appointed to conduct the medical examinations for Victoria University for 1882 in Toronto: Drs. Barrett, I. H. Cameron, A. H. Wright, W. J. Wagner, and W. W. Ogden.

THE doings of quacks are attended with more risk in New York than in our own country. Lately one of the fraternity in that city was fined 200 dollars for practising without legal qualification.

THE conversazione at the Royal College of Physicians is fixed for the 14th of next month.

THE difficulties and heartburnings connected with the Chair of Pathological Anatomy at Vienna ended a short time ago in the appointment of Dr. Kundrat. Professor Klebs has left Prague and accepted the chair at Zurich.

THE following are the dates of membership of the recently elected Fellows of the Royal College of Physicians:—Dr. Glynn, 1871; Dr. Bowles, 1875; Dr. Leech, 1875; Dr. Champneys, 1876; Dr. Ross, 1876; Dr. Matthews Duncan, 1878.

IT is satisfactory to note that the resolution of the Governors of the Bristol General Hospital, conferring on the medical members of the committee the power of voting, has been confirmed.

MR. SPENCER WELLS has been unanimously elected an honorary Fellow of the Society of Sciences and Arts of Gothenburg. This Society completed its centenary four years ago.

DR. JAMES HYSLOP, Assistant Physician of the Royal Edinburgh Asylum, has been appointed Resident Surgeon of the Pietermaritzburg Asylum, in Natal.

THE Harveian Oration will be delivered on the 24th of June by Dr. George Johnson.

SIR ERASMUS WILSON'S health continues to improve.

PHARMACOLOGY AND THERAPEUTICS.

SPIDERS IN INTERMITTENT FEVER.

THE spider as a remedial agent is suggestive of mediæval therapeutics. Two hundred years ago it was held in considerable estimation as a remedy for ague, and seems to have been derived from the Arabs, who employed the web as a local application. These old notions have induced Dr. Oliva to make a further trial of arachnidine, and from its use in 119 cases he has drawn certain conclusions, which are published in a Spanish medical journal:—(1) Arachnidine is an agent capable of curing, invariably, malarial fever, whether quotidian or tertian. (2) Doses of two grammes in the adult, and one gramme in children, usually cut the case short at the second attack. (3) Its action is, however, less prompt than that of quinine, which should therefore be preferred in pernicious cases. (4) Being tasteless, it is preferable to quinine in the case of children. (5) Relapses occur less readily with arachnidine than with quinine.

CASCARA AMARGA IN SYPHILIS.

Vegetable drugs are less esteemed in the treatment of syphilis, even as adjuvants, than they were a quarter of a century ago. The influence of sarsaparilla, once so constantly prescribed, is now discredited, unduly, according to a statement lately made by Dr. W. Carter in the "Practitioner," who asserts that, if given in sufficiently large doses, its effect may readily be recognised. From time to time new organic remedies are brought forward, soon to be forgotten. The latest of these is the cascara amarga, or Honduras bark, which has been tried at Baltimore with success, according to Dr. Coyner, who has recorded the rapid disappearance of the symptoms of secondary syphilis in the case of a man and his wife, and of inherited syphilis in their child, aged five years. The fluid extract was employed in doses which varied from forty-five to fifteen drops.

HYDRIDE OF SALICYL.

The oxidation of salicin yields, as Piria ascertained, hydride of salicyl, which Dumas showed to be the chief constituent of the essential oil of meadow-sweet; it can be ob-

tained from the green parts of other plants of the spiræa tribe; and also by the oxidation of populine, and from willow bark and quinic acid. It is a yellowish, oleaginous liquid, which, according to Apiry, was until lately used only in perfumery; but it has long been known to have a diuretic action. Spiræa root is an old tonic. The hydride of salicyl appears also to possess a powerful antiseptic action far exceeding that of salicylic acid, and altogether remarkable. A few drops injected with a little alcohol into the carotid artery, or, it is said, even the mouth, of a dead body, will prevent decomposition, even in a hot climate, for three or four days; and it will arrest the progress of putrefaction on which salicylic acid has no influence. It was employed by several Turkish surgeons during the war of 1877 with perfect success in the treatment of wounds. A few drops are said to prevent indefinitely the decomposition of urine.

MORPHIA.

MM. Grasset and Amblard have studied the action of morphia in causing convulsions in the mammalia. They found that if small doses of hydrochlorate of morphia (from one to fifteen centigrammes) are administered to dogs the brief sleep which is produced may be accompanied by partial muscular contractions, in one paw for instance, which are renewed at variable intervals. Then occur true convulsive shocks in the whole body, or in the hind limbs. After an interval the phenomena recur in more intense degree, and are followed by true convulsions. Regularly, ten or sixteen times a minute, at each inspiration, the hind limbs present a series of convulsive movements which may become general. Sometimes they are excited by external stimulation; but they are usually spontaneous. The sleep may continue profound during this convulsive period, or it may become distinctly lighter. These convulsive phenomena may continue, with intervals, for an hour. Differences are observed with different animals; but the chief characters of the phenomena are as described. In certain animals, and with small doses, there may be a brief convulsive phase at the commencement of the sleep, but it is much less constant than the later period of spasm. These convulsions, the author believes, have not previously been described, except as a consequence of very large doses, amounting to grammes. The period of cerebral excitement, described by Claude Bernard as occurring at the commencement of the sleep from morphia, is a phenomenon of a different order. The conclusions drawn from the experiments are — (1) That morphia is not diametrically opposed to thebaine, as is often stated, since it has, to a certain degree, the convulsive properties of the latter alkaloid. This conclusion is of interest in connexion with the researches of Grimaux, who has obtained from morphia alkaloids, which M. Bochefontaine has recognised to be, one (codethyline) convulsive, the other soporific (artificial codeia). (2) That the excito-motor action of opium cannot be exclusively attributed to the convulsive alkaloids, but is, in fact, due to those which are soporific. According to the ordinary composition of opium, five centigrammes of morphia represent about a milligramme of thebaine. But these experiments show that the quantity of morphia has a much more powerful convulsive action than a milligramme of thebaine. (3) There is not the supposed antagonism between the action of morphia on the frog and on the mammalia. (4) The researches hitherto undertaken on the antagonism between morphia and other agents need to be repeated, and a separate study made of the substances which antagonise the convulsive and soporific action.

CHLORAL HYDRATE.

According to the *Chicago Medical Review*, quoted by the *Chemists' Journal*, an instance of recovery from a very large dose of chloral hydrate has occurred at a lunatic asylum in an eastern State. A physician, himself an extensive alcohol and chloral drinker, administered to a patient suffering from epileptic mania one ounce of chloral hydrate. The patient sank into a deep sleep in five minutes. The stomach pump was quickly used, and hypodermic injections of whisky (!) and strychnine were administered; but the patient slept soundly for forty-eight hours, and then recovered. He presented no remarkable symptoms until the third day, when a vivid scarlatinal rash appeared over the whole body, followed in two days by general desquamation. The patient's convulsions were fewer in number after his recovery from the chloral, but for a long time the mucous membrane of the mouth was tender.

NARCOTIC ACTION OF THE CHLORINE SERIES.

Binz has found that if frogs are placed for a short time under a glass with the vapour of chlorine, bromine, or iodine, they present dyspnœa, and afterwards arrest of breathing. If they are removed before any considerable disturbance of respiration has set in (at the end of about ten seconds), they show a remarkable tolerance of the dorsal position, which Binz satisfied himself was not the result of fear, but was due to a narcotic action of the gas. The cardiac action continued unchanged, the electric irritability of nerves and muscles was normal, and the blood presented no change on microscopic and spectroscopic examination. Rabbits confined in a chamber in which chlorine is gradually evolved present at first restlessness, then dyspnœa, and die at the end of about two hours without a convulsion. The odour of chlorine can be recognised in the brain, and more strongly in the thorax and abdomen. The blood appears unchanged. He assumes that the chlorine passes through the blood as a chlorous acid. He found that when chlorine was passed through a solution of bicarbonate of soda, the first that escaped gave the characteristic reaction with iodide-starch. He found also that egg-albumen to which 1 per cent. solution of bicarbonate of soda had been added was not coagulated by the passage through it of chlorine gas.

BORACIC ACID.

Two cases of poisoning from the surgical use of boracic acid are reported from Russia by Molodenkow of Moscow. A five per cent. solution of boracic acid was used to wash out the pleural cavity of a patient twenty-five years of age, the operation lasting an hour and thirty pounds of the solution being employed (!) Nausea and vomiting followed, the pulse became frequent, and the patient prostrate. On the following evening erythema appeared on the face, and spread, on the third day, to the neck, chest, and abdomen. On the fourth day the erythema had extended to the thighs and small vesicles appeared on the face and in the throat; sight became dim, and the patient died, consciousness being preserved to the last. The second patient was sixteen years of age, and suffered from a lumbar abscess, which was opened, and washed out with the same solution and for the same length of time. The operation was followed by symptoms precisely similar to those observed in the first case, and the patient died on the third day. In each case, it may be further noted, there were transient elevation of temperature, hiccough, skin eruption, and death with the indications of cardiac paralysis.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

AFTER an unusually long interval we have at length received, through the courtesy of the Local Government Board, a batch of reports of investigations made by medical inspectors of the Board. The length of interval may, perhaps, be partially explained by a statement made in last year's annual report of the Medical Officer, from which it appears that the reports of two of the most important recent inquiries of medical inspectors, inquiries involving much expenditure of time, have been for the present withheld from the public—namely, the report relating to the hospitals erected or provided by sanitary authorities under the Public Health Act, 1875, by Dr. Thorne Thorne, and the report relating to the extension of small-pox from the Fulham Small-pox Hospital of the Metropolitan Asylums Board to the occupants of houses adjacent to the hospital, by Mr. W. H. Power, in conjunction with Dr. Thorne. It is presumed that these reports have been withheld to meet the convenience of the Royal Commission on Infectious Disease Hospitals in the Metropolis, the last-mentioned report affecting directly the subject the Commission have to consider; the first-mentioned, apparently less obviously within the purview of the Commission, but very closely affecting the action of sanitary authorities. Of the reports now before us all have more or less interest; and one, on the

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spread of small-pox infection by means of rags, by Dr. H. Franklin Parsons, has quite a special interest. We take the reports as they come to hand.

Gunnislake (*Tavistock Rural Sanitary District*)—*Diphtheria* (Dr. F. H. Blaxall).—Gunnislake is a village of about 2450 population. The outbreak which formed the subject of inquiry began during the week ending August 21st, 1881, and continued until the week ending the December 4th, 1881. Altogether 46 families were attacked, the cases numbering 100, and the deaths 10. Diphtheria had existed in a neighbouring village earlier in the year, but no evidence was ascertained to connect this or earlier cases with the outbreak in Gunnislake. The first sufferer from the disease in Gunnislake was a child in attendance at the infant school, and afterwards the mixed school became implicated in the disease. After this the malady gradually extended until most part of the village was involved. No clue to the origin was obtained, but the means of dissemination appeared to be, in the first instance, association in the school and generally personal intercommunication. The sanitary condition of the village is described as "eminently unsatisfactory with reference specially to the want of efficient sewerage, and to the general prevalence of excremental nuisance." Nothing was noted to implicate the water or the milk-supply. Of the 46 individuals first attacked 39 were children, and 35 were in attendance at one or other of the schools up to the date of their attacks. Some of these were attacked simultaneously, thus pointing to a common centre of infection, only admitting of explanation by association in school. The fluctuation in occurrence of cases on the closing and re-opening of the schools may, Dr. Blaxall thinks, "be regarded as a crucial test, pointing conclusively, in his opinion, to the schools as the medium of dissemination." As to the condition of these schools Dr. Blaxall observes:—"The question next arises as to whether this was due to local conditions in the precincts of the school, or to intermingling of infected and healthy children at school. I visited the schools two or three times, and on each occasion the privies were in a revoltingly filthy condition. The floor and seats of the infant school privy were sodden with filth and wet; and the boys' urinal of the mixed school bestrewn with excrement. The privies belonging to this latter school discharge into one closed cesspit, which is ventilated by means of shafts led through the roof of the privy, two facing towards the school and two in an opposite direction. The stink from these ventilators was very perceptible immediately on entering the yard. The school stands about twenty-five yards from the privy, while the intervening land falls towards the latter, bringing the ventilators on about a level with the schoolroom, the air of which cannot fail to be polluted by privy exhalations, and considerably so, I should imagine, when the wind is in that direction. There was, however, no evidence to show that these unwholesome privies stood in direct relation to the disease as cause and effect. The water provided for the use of the schools is derived from the reservoir that supplies the village generally; a tap is placed in the yard belonging to the mixed school, and from this boys and girls drink direct, while for the infant school the water is fetched in a pitcher. One cup is provided for the use of all the children. Now, supposing infected and healthy alike to have drunk from the same tap or cup, this would be a very likely means of spreading the disease; but whether or not this actually occurred must remain an open question. On the other hand, every step of the inquiry went to show that free intercourse existed between the infected and healthy at the schools. Children continued to attend school up to the date of attack; others were unwell, but still able to go to school for a while, till at last they became too ill to do so, and their cases were pronounced to be diphtheria; other children, again, would be kept at home for a day or two on account of sore-throat, then go to school for a few days, and at length be laid up with diphtheria. In like manner children from infected houses continued to go to school till they were themselves attacked. Further, it seems highly probable that cases characterised simply as 'sore-throat' [sore-throat had been very general in the village, likewise scarlet fever, though in a mild form, hundreds of cases occurring] were in reality mild attacks of diphtheria, for in one or two instances parents, when speaking to me of their children having suffered from sore-throat, went on to describe their illness as having been followed by impaired vision, and alteration of voice, symptoms indicative of diphtheritic paralysis. Persons also from infected houses, whilst suffering from sore-throat, went as usual to their daily work, and in this way, supposing their ailment to have been actual diphtheria, though in so mild a form as to escape recognition, it is easy to understand how they may unwittingly have communicated the infection to others. It is possibly to this circumstance that the occasional cropping up of cases in the district, among other than school children, has to be attributed." Concluding his report Dr. Blaxall observes:—"Usually much importance is attached to keeping schools open; and if this is to be done during the prevalence of dangerous infectious disease, the facts detailed in this report show the necessity of having ready at command means of isolation and efficient disinfection, combined with strict supervision to prevent the too early return to school of those who have suffered from such disease, and to ensure the several provisions of the Public Health Act relating to the exposure of infected persons and things being duly regarded."

St. Ann's Chapel (*Rural Sanitary District of Tavistock*)—*Water-supply* (Dr. F. H. Blaxall).—St. Ann's Chapel, it appears, is supplied with water which in its course, before it becomes available for domestic use, is fouled by cattle, ducks, and other live things, a dash of human excrement, the washings of the entrails of slaughtered pigs, and road washings. And even if this delectable composition is to be secured unmuddied the inhabitants have to rise very early in the morning or to procure it very late at night. The sanitary authority having turned a deaf ear to the complaints of the inhabitants, Dr. Blaxall was directed to visit the locality, and he reports that "the inhabitants of St. Ann's Chapel have just grounds for their complaint as regards both the distance and the impure character of their water-supply; secondly, that it is an urgent necessity that the village should be supplied with wholesome water."

The annual meeting of the North-Western Association of Medical Officers of Health was recently held in Manchester. Dr. Kenyon, medical officer of health, the retiring president, took the chair. A satisfactory report of the position of the Society was read by the secretary; and after the transaction of some formal business, Mr. Hughes, medical officer of health of Ashton-under-Lyne, was elected president of the Association for the ensuing year.

The Local Government Board has signified its intention of issuing a provisional order for the formation of the Uxbridge Rural and Urban Sanitary District into a united district for hospital purposes.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 5664 births and 3677 deaths were registered during the week ending the 29th ult. The annual death-rates in these towns, which had been equal to 24·3 and 22·7 in the two previous weeks, further declined last week to 21·7. The lowest rates in these towns last week were 13·7 in Derby, 13·8 in Cardiff, 15·8 in Hull, and 16·1 in Plymouth. The rates in the other towns ranged upwards to 26·4 in Bolton, 27·5 in Oldham, 27·8 in Preston, and 29·4 in Manchester. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 620 last week, showing an increase of 41 upon the number in the previous week; 211 resulted from whooping-cough, 183 from measles, 84 from scarlet fever, 54 from diarrhœa, 47 from "fever" (principally enteric), 21 from diphtheria, and 20 from small-pox. The smallest fatality from these diseases occurred in Plymouth and Halifax, and the greatest in Manchester and Bolton. Whooping-cough caused the highest death-rates in Newcastle-upon-Tyne and Brighton; measles in Bolton, Bradford, and Manchester; scarlet fever in Nottingham, Cardiff, and Hull; and "fever" in Birkenhead and Blackburn. Fourteen of the 21 deaths from diphtheria in the twenty-eight towns were recorded in London. Small-pox also caused 19 more deaths in London and its suburban districts, and one each occurred in Nottingham, Derby, Leeds, and Hull. The number of small-pox patients in the metropolitan asylum hospitals, which had been 337 and 350 on the two preceding Saturdays, declined to 321 at the end of last week; 47 new cases of small-pox were admitted to these hospitals during the week, against 37 and 66 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London further declined to 311 last week, from 392 and 331 in the two pre-

T COPY AVAILABLE

ceding weeks; they were 57 below the corrected weekly average. The causes of 88, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Leicester, Brighton, and in three other smaller towns; whereas the proporions of uncertified deaths were largest in Wolverhampton, Salford, Sheffield, and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS

The annual death-rate in the eight Scotch towns, which had been equal to 24·8 and 23·2 per 1000 in the two preceding weeks, rose again to 24·1 in the week ending the 29th ult.; this rate exceeded by 2·4 the mean rate in the twenty-eight English towns. The deaths referred to the seven principal zymotic diseases in these towns, which had been 103 and 94 in the two previous weeks, further declined to 92 last week; of these, 22 resulted from diarrhœa, 21 from whooping-cough, 16 from measles, 13 from diphtheria, 11 from "fever," 9 from scarlet fever, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·9 per 1000 in the eight towns, and was almost identical with the mean rate from the same diseases in the large English towns. The 22 deaths attributed to diarrhœa showed an increase upon recent weekly numbers; were 7 above the number in the corresponding week of 1881, and were equal to an annual rate considerably above that which was reported from the same cause in the English towns. The 21 deaths from whooping-cough, however, of which 13 occurred in Glasgow and 5 in Edinburgh, showed a decline; as did also the 16 fatal cases of measles, which included 7 in Edinburgh and 5 in Glasgow. The 13 deaths reported from diphtheria exceeded the number in the previous week by 4; 7 occurred in Glasgow and 4 in Edinburgh. The 11 deaths referred to fever exceeded the numbers in recent weeks, and included 6 in Glasgow and 2 in Edinburgh; they were equal to a death-rate considerably exceeding that which prevailed from the same cause in the English towns. The deaths from acute diseases of the lungs in the eight towns, which had been 137 and 114 in the two preceding weeks, were 123 last week, and 7 above the number returned in the corresponding week of last year.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 28·3 and 36·3 per 1000 in the two preceding weeks, was 30·3 in the week ending 29th ult. During the first four weeks of the current quarter, the death-rate in the city averaged 30·7 per 1000, against 21·5 in London and 21·4 in Edinburgh. The 202 deaths in Dublin last week showed a decline of 40 from those returned in the previous weeks. They included 16 which were referred to measles, 5 to "fever" (typhus, enteric, or simple), and one each to scarlet fever, diphtheria, and whooping-cough, and not one either to small-pox, or diarrhœa. Thus 24 deaths resulted from these principal zymotic diseases, against 29 in the previous week; they were equal to an annual rate of 3·6 per 1000, against 3·7 and 4·5 from the same diseases in London and Edinburgh. The fatal cases of measles in the city, which had been 14 and 21 in the two previous weeks, were 16 last week, raising the number recorded within the city since the beginning of the year to 497. The 5 deaths from "fever" corresponded with the number in the previous week, while the fatal case each of scarlet fever and whooping-cough were the first reported since the end of March.

THE SERVICES.

ARMY MEDICAL DEPARTMENT. — Surgeon-General Michael Fenton Manifold has been placed on retired pay; Brigade Surgeon John Harrison Robotham has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major James Balfour Cockburn, M.D., has been granted retired pay, with the honorary rank of Brigade Surgeon.

YEOMANRY CAVALRY.—Lanarkshire: Russell Eliott Wood, Gent., to be Surgeon.

RIFLE VOLUNTEERS.—3rd Staffordshire: Edward Tenison Collins, Gent., to be Acting Surgeon.—2nd Warwickshire: Surgeon John Tibbits, M.D., is granted the honorary rank of Surgeon-Major.—1st Argyll (Argyllshire Highland): Surgeon and Honorary Surgeon-Major John Reid resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.—5th Cheshire: Acting Surgeon John Somerville resigns his appointment.—1st Clackmannan and Kinross: Duncan William Currie, Gent., M.B., to be Acting Surgeon.—17th Lancashire: Surgeon Joseph St. Patrick Riley resigns his commission.—1st Linlithgowshire: Surgeon Andrew Gilmour is granted the honorary rank of Surgeon Major.—7th Middlesex (London Scottish): Surgeon and Honorary Surgeon-Major John Guise Westmacott, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.—17th (North) Middlesex: James Davison, Gent., M.D., to be Acting Surgeon.—1st Newcastle-on-Tyne: The services of Surgeon William Brecknell are dispensed with.—2nd Shropshire: Surgeon Folliott James Sandford, M.D., is granted the honorary rank of Surgeon-Major.

ADMIRALTY.—Staff-Surgeon James Fitzgerald Parr has been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet, with seniority of April 19th, 1882.

The following appointments have been made:—Surgeon Stewart F. Hamilton to the Plymouth Division Royal Marines, vice Williams; Surgeon Robert W. Williams to the *Northumberland*, vice Hamilton; Fleet Surgeon Charles H. Slaughter to Chatham Dockyard, vice Micklejohn, whose time has expired; Fleet Surgeon William Conolly, M.D., to the *Dædalus*, vice Evans, whose period of service has expired; Staff-Surgeon George Curtis to the *Repulse*, vice Conolly.

HONG-KONG.

THE report by Sir J. Pope Hennessey, the Governor of Hong-Kong, to the Colonial Office, contains much interesting information respecting that colony. Under the section "Sanitation and Public Health" some details are given respecting the condition of the town of Victoria, the sanitary measures which have at various times been recommended and carried out, either partially or fully, with some judicious observations on the impolicy of sending out from Downing-street "minute and stringent rules" relative to the construction of buildings and other sanitary arrangements, which, though excellent in their application at home, are often found to be impracticable, or unsuited to the conditions of life in our tropical colonies. The Governor states that since 1874, when Sir A. Kennedy reported the general health to have been satisfactory, "the annual death-rate of the colony has declined year by year, the general health of the whole community has continued to improve, and the Registrar-General's returns for the current year (1880) show the lowest death-rate hitherto recorded in Hong-Kong." This statement, as regards the improved health of the general population, is corroborated by the statistics of the troops, among whom the death-rate in that period has only once exceeded 10 per 1000, and on that occasion (1878) was only 13·0, while the average of the ten years preceding 1874 was 41·62 per 1000 of the strength. There can be little doubt that the fever which proved so great a cause of mortality in the earlier years of the colony was a result of the opening up of the ground in making the streets and in digging foundations for the houses, and that the cessation of this cause of disease has had an important influence in the reduction of the death-rate. In the report some curious instances are given of the different views held at different times as to the best means of improving the public health. At one time a sanitarium was built on the Peak, 1700 feet above the sea level; this was subsequently condemned by some of the medical officers, and was abandoned. Sir R. MacDonnell, when Governor, re-established it with complete success, and the locality is now a favourite one for the erection of villas by the European merchants, on whose "children, especially, the good effect of the change from the hot stagnant atmosphere of Victoria Harbour to the fresh breezes of the Peak in the summer is very marked." It appears that some of the medical officers attributed the difficulty of curing the prevailing fever of the place to the existence of trees. These were accordingly cut down, but with the apparent effect of increasing the amount of fever. Now, the opinion in favour of the preservation of trees, in a

sanitary point of view, is so decided that an expenditure of 10,000 dollars a year has been sanctioned by the Legislative Council, and in the year reported upon 781,986 trees were planted. It is proposed to continue this expenditure till the whole island is fairly wooded, which will take about ten years. The trees selected appear to have been chiefly the Pinus sinensis, the banyan tree, and bamboos, but other hardy and valuable timber trees are also being reared. An interesting, and in some respects amusing, account is given of the attempts made to introduce into Hong-Kong what are there termed "the methods of Western sanitary science," as regards the construction and domestic arrangement of the houses, and the adoption of an underground network of drains and sewers. The latter especially was objected to as being quite inconsistent with the habits of the Chinese, and likely to prove a source of serious disease. In this view Sir J. Pope Hennessey concurred, after a careful inquiry into the opinions of medical men of long experience in the country. It appears that so far back as 1867 the Colonial Office directed the dry-earth conservancy system to be carried out in the gaol and other Government establishments, but the local medical authorities did not approve of it, and it was not done. In 1876, a committee appointed by the Governor called attention to the vitiated state of the air and the stench in the gaol. On further inquiry it was ascertained that instead of the dry-earth system having been adopted, the night soil was emptied every morning down a drain in the middle of the yard, and that the residents in some of the streets between the gaol and the harbour complained of the nuisance caused by this method of disposing of the sewage. Orders were immediately given to enforce the introduction of the dry-earth system, and it has since been worked in a most satisfactory manner, and this nuisance has been effectually abated. With regard to many of the clauses of the Ordinance of 1856, regulating the buildings in the town, Sir J. Pope Hennessey appears to have consulted the leading Chinese as to the desirability of enforcing them and the best means of doing so. In particular as to a clause which directed that "in all buildings, which are used or liable to be used, either partly or entirely, as dwelling-houses, there should be safe cooking places," he found that the leading merchants of the Nám-pakhong Guild were of opinion the regulation was so judicious and its infringement so likely to be attended with danger that he refused an application from a firm of European architects for permission to build a house for a Chinese bank and a goldsmith's shop without kitchens. Vaccination appears to be carried out zealously in Hong-Kong under the action of the directors of the Tung-wá Hospital, who send vaccinators through the villages of the island and sometimes even beyond the colony to the towns and villages of the Kwangtung Province. "When it is remembered that Hong-Kong is constantly being visited by steamers and ships from places where small-pox exists, and that the rapid commercial movement in the harbour renders the colony peculiarly liable to the introduction of the disease, there can be little doubt that the immunity we have enjoyed for some years past has been largely due to the efficient vaccination conducted under the auspices of the Tung-wá Hospital."

Under the head of "Crime, Prison Discipline, and Flogging," a curious account is given of a piece of what we suppose may be termed exceptional legislation and its results. In 1866 the Governor took upon himself the responsibility of abandoning a new and extensive gaol which had just been erected, and of modifying the rules then in existence as to the remission of sentences by directing that there should be no remission unless the prisoner consented to be marked permanently on the lobe of the left ear and sent out of the colony, with the further condition that he should be flogged if found again in it. This was subsequently found to be illegal, and was at once stopped. But in 1872 an Ordinance was passed under the title of "the Branding and Flogging Ordinance," by which this system was legalised and the remission was granted after one-half or sometimes one-third of the sentence had been completed. The result of this Ordinance was anything but satisfactory; for, although it reduced the number of prisoners in Hong-Kong, it added permanent members to the worst class of the criminal population, who congregated chiefly in the neighbourhood of our colony. In some instances the floggings were so severe as to cause irreparable injury to the unfortunate prisoners. The subject was brought under the consideration of Lord Carnarvon, who ordered an inquiry by a medical board, and in 1877 Sir J. Pope Hennessey stopped all public flogging and branding, and flogging in private was reduced so much that twelve months elapsed without a single infliction having been found necessary. It is now administered only for such offences as entail flogging in England. Under this modification of the law there has been a steady decrease both in the number of prisoners committed to Hong-Kong gaol, and in the number convicted and fined or imprisoned by the police magistrate. Sir J. Pope Hennessey states, as the result of a careful inquiry, that he ascertained "beyond all doubt that the negation of prison discipline, the excessive use of the lash, and the illegal punishments that had become mixed up with this system, had created and fostered a criminal class in the colony and the neighbourhood, instead of diminishing the number of criminals. In short, a system devised for the suppression of crime had increased crime." We trust that the more humane system now adopted, coupled with improvements which have been introduced into the organisation of the police, may prove successful in diminishing crime, and adding to the security of life and property in the colony.

The report has left on our minds a very favourable impression of Sir J. Pope Hennessey's qualifications as an administrator, and of the judicious manner in which he has conducted his inquiries into alleged grievances and suggested improvements. The facts stated in it certainly point strongly to the impolicy of the Home Government issuing orders in sanitary matters without first taking steps to ascertain their applicability to the circumstances of the colony and the conditions of the climate in which they are to be brought into operation.

WILLS AND BEQUESTS.

THE Scotch Confirmation, under the seal of the Commissariot of the county of Edinburgh, of the trust, disposition, and settlement of Sir Robert Christison, Bart., M.D., LL.D., D.C.L., of 40, Moray-place, Edinburgh, who died on Jan. 27th last, granted to Sir Alexander Christison, Bart., David Christison, M.D., and Mr. John Christison, the sons, and the executors nominate, has been sealed in London, the personal estate in England and Scotland amounting to over £58,000.

The will and codicil of Dr. Frederick Waghorn, Surgeon-Major, Army Medical Department, late of 3, Warsaw-villas, Victoria-road, Aldershot, who died on March 30th last, were proved on the 22nd ult. by Mr. John Waghorn, the brother, and sole executor, the value of the personal estate being £600.

The Scotch Confirmation, under seal of the Commissariot of the county of Edinburgh, of the holograph settlement of Robert Wiseman Cunningham, M.D., Surgeon-Major in H.M. Bengal Army, of 3, Strathearn-place, Edinburgh, who died on Dec. 19th last, granted to Mrs. Robina Hannay or Cunningham, the widow and executrix nominate, was sealed in London on the 22nd ult., the personal estate in England and Scotland being under £600.

The will of George Yeates, M.D., of Grove-road, Walthamstow, who died on Feb. 26th last, was proved on the 24th ult. by Mr. Gilbert Houghton and Mr. Charles George Talmage, the executors, the value of the personal estate being over £2600. The testator leaves all his property upon trust for his mother for life, and then for his sister Jane.

The will of Joseph Williams, M.D., formerly of Tavistock-square, but late of "Holmhurst," Cambridge-park, Twickenham, who died on March 20th last, was proved on the 14th ult. by Mr. Howard Douglas Williams, the son, the value of the personal estate exceeding £5000. The testator leaves all his freehold and personal property upon trust for his wife, Mrs. Georgiana Maria Williams, for life, or until her remarriage, and then for his said son.

The will of Anthony Ebenezer Blest, M.D., of 12, Norfolk-terrace, Westbourne-park, who died on the 1st ult., was proved on the 26th ult. by Mrs. Marianne Blest, the widow, and Mr. John Stephen Lee, the executors, the personal estate exceeding £1600. The testator gives all his estate and effects to his wife.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Charles Ford, of 7, Russell-

square and 4, Bloomsbury-square, Solicitor, £500 each to the Middlesex Hospital, the Hospital for Consumption and Diseases of the Chest, West Brompton, the Cancer Hospital, Fulham-road, West Brompton, King's College Hospital, University College Hospital, Queen Charlotte's Lying-in Hospital, Homer-street, New-road, and the Royal Free Hospital, Gray's-inn-road.—Major Andrew Cathcart, £25 to St. George's Hospital.—Mr. Louis Cohen, of the Stock Exchange and 84, Gloucester-place, £200 each to the Jewish Hospital and Orphan Asylum, Lower Norwood, and the London Hospital, and £50 each to the Metropolitan Free Hospital, Devonshire-square, and St. Mary's Hospital.—Mr. Alfred Kitching of Darlington, £100 to the Darlington Hospital and Dispensary.—Mr. Christopher Russell Brown, of 53, Tredegar-square, Mile-end, £1000 each to the London Hospital and the Newcastle-on-Tyne Infirmary; £500 to the Ophthalmic Hospital, Moorfields; and £200 to the City of London Truss Society.—Mr. William Henry Ryder, of 17, New Bond-street, Jeweller, and of Telford Lodge, Streatham, £500 each to the London Hospital, Charing-cross Hospital, the Royal Free Hospital, Gray's-inn-road, the Middlesex Hospital, and St. George's Hospital; £250 each to the Westminster Hospital and the Hospital for Consumption, Brompton; and £100 to the Evelina Hospital.—Mr. William Slocombe, of 1, St. John's-villas, Upper Holloway, £800 to the Hospital for Incurables; £400 each to the City of London Hospital for Diseases of the Chest, the Royal Hospital for Diseases of the Chest, City-road, and the Hospital for Consumption and Diseases of the Chest, Brompton; and £300 to the Fever Hospital, Liverpool-road.—Mr. John Hartnell, of 17, Blomfield-street, Upper Westbourne-terrace, £200 each to the London Hospital, the Westminster Hospital, and the Hospital for Sick Children, Great Ormond-street; £100 each to Charing-cross Hospital, the Middlesex Hospital, the Royal Free Hospital, Gray's-inn-road, the Royal Ophthalmic Hospital, Blomfield-street, Moorfields, the Samaritan Hospital for Women and Children, Lower Seymour-street, Portman-square, the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, the Royal Hospital for Incurables, Putney-heath, the London Fever Hospital, Liverpool-road, the National Hospital for the Paralysed and Epileptic, Queen-square, Bloomsbury, the Metropolitan Convalescent Hospital, Walton-on-Thames, the Convalescent Hospital, Seaford, and the Royal Sea-bathing Infirmary, Margate.—Mrs. Selina Theresa Mangles, of Sunningdale, Berks, £200 to St. George's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

FOR the benefit of intending candidates we print the following standing rules of the College:—

1. A candidate referred for three months on the Primary Examination for the diploma of Member is required, before being admitted to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during a period of three months subsequently to the date of his reference.

2. A candidate referred for six months on the Primary Examination for the diploma of Member is required, before being admitted to re-examination, to produce a certificate of having performed dissections during three months, and of having pursued, to the satisfaction of his teachers, his anatomical and physiological studies in a recognised medical school during six months subsequently to the date of his reference.

PRESENTATION.—On May 1st a presentation was made to Dr. Savage, Medical Superintendent of Bethlem Royal Hospital, by the attendants and servants of the institution on the occasion of his marriage. This consisted of a very handsome dining-room clock and side pieces, drawing-room clock of copper with side pieces of the same metal, besides two brass girondelles and other ornaments.

MR. PYE, F.R.C.S., is delivering a course of six lectures on the Physiology of the Nervous System and the Organs of Special Sense, at the Grammar School, St. John's Hill, Battersea. The lectures are given under the auspices of the University Extension Society.

Correspondence.

"Audi alteram partem."

BRIGHTON MORTALITY STATISTICS.

To the Editor of THE LANCET.

SIR,—The statement in your last week's journal that both the annual and the zymotic death-rate in Brighton have been high during the last six months is, no doubt, true. But, at the same time, it is also equally true that the salubrity of no town or district can be judged of from the experience of so short a time as six months, or even double that period. It would seem to me therefore only fair to the authorities and inhabitants of Brighton, that the public, having been kept so well informed of the death-rate of the place during the last few months, should also know how it stands in this respect taking a series of years.

On referring to the preliminary tables in the quarterly returns of the Registrar-General (Nos. 6, 7, and 8) for the last three years, 1879–81, it will be found that Brighton compares with the average of the twenty large towns, and with London and Portsmouth, which, with Brighton, are the first three on the list, as follows:—

Annual Death-rate per 1000 of the Living.

	Average of 20 large towns.	London.	Brighton.	Portsmouth.
1881	21·7	21·4	19·2	19·3
1880	22·7	21·8	19·7	19·5
1879	23·1	22·8	19·0	17·3
Average of 3 yrs.	22·5	22·0	19·3	18·7

Zymotic Death-rate.

1881	3·3	3·6	2·2	3·4
1880	4·0	3·7	2·7	2·7
1879	3·2	3·3	1·5	1·2
Average of 3 yrs.	3·5	3·5	2·1	2·4

According to these returns, the annual average rate for the three years is only 19·3 per 1000, and the zymotic only 2·1, which, for a town of the size of Brighton, is exceedingly creditable, and compares with 3·5 in the twenty large towns and 3·5 in London. What fault there is to be found with the salubrity of Brighton as far as statistics go I am at a loss therefore to conceive. In estimating and comparing the death-rate of Brighton, I may be permitted to take this opportunity of mentioning that there is a very important factor which has been almost entirely overlooked. The Government census is taken during the spring of the year, when Brighton is at its emptiest. During the season, extending over a period of at least six months, we have an accession of visitors, variously estimated at from twenty to forty thousand. According to this, the population of Brighton, for the mortality returns, ought to be ten thousand higher, which would very materially lower the death-rate. The high death-rate of Brighton during the last six months has been due to outbreaks of whooping-cough, measles, and scarlet fever, which have been confined almost entirely to the St. Peter's district, where the great mass of the poorer classes reside. But these diseases arise from, and are propagated by, infection, and are but little affected—whooping-cough and measles probably in no degree—by the drainage or other sanitary arrangements. No matter how healthy and well arranged any locality may be, if it has a crowded population of poor children, there from time to time most assuredly such diseases will make their appearance. For outbreaks of such epidemics I maintain the authorities are not responsible. But if I understand your charge against the salubrity of Brighton, it is that the drainage is defective and that the inhabitants are suffering from the escape of deleterious gases from the gratings in the streets. There is no evidence whatever of this. There was certainly an outbreak of typhoid fever last autumn in one quarter of the town, but this, I was informed, was traced to impure milk obtained from a dairy where the cows had been supplied with vitiated water. With this exception, both typhoid fever and diphtheria for several years past have been very infrequent in Brighton, which may be seen by referring to the quarterly returns. During

the two previous years, 1879-1880 (I have not the returns by me for a longer period), there were only 33 deaths from fever of all kinds. How many of these were typhoid it does not say, and only six deaths occurred from diphtheria.

I am, Sir, your obedient servant,

W. KEBBELL, M.D.,
Senior Physician to the Sussex County Hospital.

Hove, May 1st, 1882.

PERMANGANATE OF POTASH AND SNAKE-POISON.

To the Editor of THE LANCET.

SIR,—I read with great interest the important article by Dr. Vincent Richards, published in THE LANCET of the 7th of January, and I see that the results of his experiments agree entirely with those of my own in Brazil. I desire, however, in order to re-establish the truth, to present some facts in regard to a doubtful point in that important article. Dr. Vincent Richards supposes that my conclusions relative to the neutralising effects of permanganate of potash are based on experiments made with viper poison. I should say first of all that the viper is unknown in Brazil. My experiments were made with the venom of the following species: Surucucú (Lachesis rhombeata), a reptile that attains a large size (two metres and more), and whose bite is considered to be one of the most dangerous; jararaca (Bothrops jararaca), the most common of our venomous species, and whose dimensions seldom exceed one metre; jararacussú (Bothrops jararacussú), whose bite is as much feared as that of the surucucú, and which attains a larger size than the jararaca; and finally the urutú, a species not very well defined as yet zoologically, but which is similar to the bothrops, and is endowed with a very active poison. I have already collected about forty cases of bites in man, of individuals belonging to these different species, in which hypodermic injections of permanganate of potash have given the best results. Among these there are even two cases of bites by the rattlesnake (Crotalus horridus). I now see that the permanganate of potash is also efficacious against the poison of the cobra de capello.

I cannot agree with Dr. Vincent Richards that the poisons exercise a different action according to the species. At least, for the species of Brazil, I can affirm, based on the results of more than 400 experiments, made under various conditions and with a minute physiological analysis, that the poisons of these species all act in the same way; that they do not act particularly on the blood or on the nerve centres, but on all albuminoid matter. If differences have been at times observed in the manner in which the animal responds to the action of the poison, these differences depend on the individual and specific conditions of the animal, or on the manner by which the poison is introduced in the organism. If the poison be introduced in quantity in a vein, the animal succumbs rapidly, the mechanism of death being at times somewhat varied, but the perturbations of the nervous centres predominating. In these cases there is not sufficient time for the blood to become more fluid. In slower cases bleeding due to the decomposition of the blood may occur. It is possible that the poison of the cobra de capello forms an exception to this rule, but the above is perfectly exact with regard to the Brazilian species.

Dr. Vincent Richards establishes in his conclusion No. 6 a point of the greatest importance. I have already stated in my published works on the subject, as well as in a circular indicating the mode of application of the permanganate of potash, which the Brazilian Government distributed throughout the empire, that to be efficacious this substance should be put in immediate contact with the poison in the tissues. On this account I recommend that the injection should be made as quickly as possible in the orifice made by the fangs of the snake. When the application is delayed and the poison has had time to spread itself in the member, I recommend that a number of injections should be made not only at the point of inoculation of the poison, but also in different parts of the member up to the limits of the sound portion. By following these instructions a number of individuals have been saved by injections made eight and ten hours after being bitten. The local effects of the poisoning were arrested, and in the course of two, three, or four days the wounded member had returned to its normal state. It should not be forgotten that permanganate of potash in a solution of 1 in 100 has no irritating effect, and that in the numerous cases in which it has been applied it has never produced a scab. I propose to make a methodic collection of the clinical cases of Brazil, and at the proper time will give an account of them in your journal.

Before closing I wish to make a remark on one topic of Dr. Vincent Richards' article. He says that although from a scientific point of view the discovery may be valuable, he fears it will be of little practical utility in India, because there the victims of snake-bites cannot for the most part obtain the aid of competent persons. With reference to what has taken place in Brazil, I may state that the greater part of the applications have been made by persons completely foreign to the medical profession, according to the directions given in my circular. When once the practical method of application and the use of the syringe of Pravaz have been taught to countrymen of India, and the substance and necessary instruments are placed within their reach, all these difficulties will have disappeared.

I am, Sir, your obedient servant,

Rio de Janeiro, March 29th, 1882. J. B. DE LACERDA.

OÖPHORECTOMY.

To the Editor of THE LANCET.

SIR,—I am sorry that I did not see your remarks upon one of the cases of removal of an ovary related by me at the Obstetrical Society in time to reply to it in last week's LANCET. I consider your strictures unfair and incorrect; not intentionally so of course, but simply because the report upon which you founded them did not contain a sufficiently detailed account of the case. You say: "This is the first time we have heard of dyspnœa depending on heart disease in a patient, pale and out of breath, being referred to an ovarian disorder, and we fail to discover in the report of the case the slightest evidence for such a view." In answer to this, I reply that the dyspnœa did not depend upon heart disease alone. It was to a great extent a reflex affection, and its source was a diseased ovary, as the result proved.

The patient certainly had an old mitral disease, and during the attacks of dyspnœa there was increased action of the heart; but the patient herself, in describing the feeling, always referred her distress to the abdominal region, and generally used the same words—"shortness of breath in my body." An attack could only be relieved by one of three very peculiar positions—1. By sitting on a stool and arching the body forwards until the forehead rested upon a second stool. 2. By curling herself up on one side in bed. 3. By the knee-elbow position. The patient was never able to sleep upon her back, and had long been accustomed to sleep in the knee-elbow position, her forehead resting upon her hands, which were supported by pillows. After removal of the prolapsed ovary, none of these positions were ever again necessary, and the patient could sleep in the dorsal position. I should take up too much of your valuable space were I to go further into the matter, but your analogy with the testicle is quite beside the mark. The ovary, on removal, was found to contain small cysts, and to be the seat of chronic inflammation, as proved by Dr. Galabin's report of his microscopic examination of sections properly hardened and prepared.

In the second case the ovary was not removed on account of hysteria, as you imply, but for pain more or less constant. This ovary was also found to be diseased. The general tone of the discussion which followed the reading of my paper was very favourable, with the exception of the remark of the President, with whom the ovary is a sacred organ, never on any account to be meddled with. The removal of a prolapsed ovary is a very trivial operation.

I am, Sir, your obedient servant,

Leeds, May 2nd, 1882. JAMES BRAITHWAITE.

HOSPITALS AND THE STATE.

To the Editor of THE LANCET.

SIR,—I read with very much pleasure the able review on Mr. Burdett's paper, published in your issue of the 15th April, and I am quite certain that hospital managers generally will fully endorse the reviewer's remarks. Mr. Burdett's tables are good as far as they go, but they lack some of those vital details which are absolutely necessary to

render the tables valuable for comparative purposes. No comparative statement will be of any real value unless the greatest regard be paid to the proper selection and arrangement of details in every particular. As I have pointed out before, most hospitals differ widely in management; for example, some hospitals compel the patients to provide themselves with tea, coffee, sugar, and butter, also with surgical appliances, or partly so; other hospitals provide all these things free. Besides, some resident medical staffs only receive a salary, others only maintenance, but some hospitals give both salary and maintenance. Again, the class of patients admitted should be considered; for example, some institutions admit fever and other paying patients, whereas at others the patients are not asked to contribute anything towards their maintenance, &c. Examples might be multiplied showing the great difficulty which exists in arriving at anything like a satisfactory basis for the construction of tables for comparative purposes. But I hope I have said sufficient to show that tables, to be reliable for scientific comparison, should not only give the income and expenditure, but should also give the inner working details in all their bearings. Tables constructed on any other data are misleading and injurious to institutions, especially when published.

I am, Sir, your obedient servant,

THOMAS BLAIR, General Manager.

Leeds, April 29th, 1882.

THE PURITY OF CALF LYMPH.

To the Editor of THE LANCET.

SIR,—Assuming that human lymph, which contains blood, may communicate syphilis, scrofula, or cutaneous disease, may not foot and mouth disease, or other form of constitutional disease in animals, be in like manner communicated to the human subject by vaccination if the calf lymph used contained blood? Parents ask the question, and can it be answered with professional certainty in the negative? Mothers prefer to see the lymph used, be it human or calf, clear and bloodless; and with the prejudice, unhappily still too often met, against vaccination, the subject is, I think, important, deserving of attention as regards the operation itself; and it seems desirable that the general feeling and expression of the profession upon it should be united. It is asserted by some that a little blood mixed with the lymph taken from the calf is perfectly harmless, and practically unavoidable, as one method of collecting the lymph implies squeezing with a clamp, to make the vaccine vesicle burst and discharge its contents; but if there is even a bare possibility of transmitting to the human subject the diseases of animals by vaccination, then surely the same care to avoid blood in the lymph collected from them, as in the human subject, should be practised, and the use of the clamp discontinued.

I am, Sir, yours faithfully,

ARTHUR E. T. LONGHURST, M.D.

Wilton-street, S.W., April 28th, 1882.

EDINBURGH.

(*From our own Correspondent.*)

Health of Edinburgh.—The Summer Session.—The Natural History Chairs.—University Students' Club.—Fever Accommodation in Edinburgh.—Madeira as a Health Resort for Consumptives.

THE mortality last week was 87, and the death-rate 20 per 1000. Fully 50 deaths were due to diseases of the chest, and 15 to zymotic causes, of which 7 were measles. The intimations of infectious diseases amounted to 302, of which 268 referred to measles. Of the 131 births 15 were illegitimate.

The University medical classes reassembled for the summer session on May 2nd, while some of the extra-academical lecturers gave their "introductories" on May 1st. The practical classes in Pathology and Materia Medica will, I understand, be held this session in the new University buildings. The extra-academical school has been strengthened by the addition of two new lecturers on Midwifery and Diseases of Women—Dr. Peter Young and Dr. Berry Hart. The former is a well-known practitioner in Edinburgh; the latter has for some years most successfully assisted Professor Simpson. The clinical examination for the M.B. degree commenced on Tuesday, May 2nd, and will probably run on until the end of June. In consequence of the large number of students who now present themselves for degrees in medicine, the examination work adds very seriously to the labours of the professors. I understand that the examiners for the Second Professional Examination, which was held last month, were engaged six hours daily for ten days. Coming, as that examination does, at the end of the arduous winter session, it is a serious tax on the examiners, especially those who happen to be engaged in practice.

The prompt manner in which the Government filled up the vacancy created by the resignation of Mr. Ray Lankester caused very general satisfaction here. The new professor, who will be warmly welcomed, gives his introductory lecture on Friday, May 5th. Mr. Ray Lankester has written a letter to the *Scotsman*, in which he explains more fully than he had previously done the reasons for his precipitate resignation. The appointment of Professor Alleyne Nicholson to the chair of Natural History in the University of Aberdeen has also been well received here. Professor Nicholson's friends are rejoiced that the claims of such a hard worker and such a successful teacher have been duly recognised. Very general sympathy is at the same time felt for Dr. McIntosh, who has consented, at the request of the Senatus, to conduct the course of Natural History in the University of Edinburgh during the present session.

The new premises at 3, Park-place, recently acquired by the Edinburgh University Students' Club, have been altered and fitted up as a club-house, and were thrown open to visitors on Saturday. On the first flat are a commodious dining-room, piano-room, refreshment-room, and lavatories with hot and cold water; while on the second flat are a dressing-room, study, news-room, and large smoking-room with a fountain. The club contains about 200 members, and it is hoped that the extensive alterations and additions to the club-house will induce many more students to join.

The question of fever accommodation in Edinburgh is exciting a good deal of interest at the present time, and the managers of the Royal Infirmary and the directors of the Royal Hospital for Sick Children have addressed letters to the Lord Provost, magistrates, and council, requesting to be relieved of the onerous burden of providing accommodation for fever patients. It is sincerely to be hoped in the interests of these institutions that a satisfactory arrangement may be come to, and that the provision of hospital accommodation and the maintenance of fever patients may in future be defrayed by the ratepayers.

At the last meeting of the Royal Society of Edinburgh, Professor Smyth, the Astronomer Royal for Scotland, communicated a paper on "Some Points in the Meteorology of Madeira, both Absolute and Comparative." He remarked that an equable temperature throughout the year—the summer mean being 66·2 degrees, and the winter mean 60·4°—was the marked feature of the climate of Madeira, and this was due to the abundance of watery vapour always present in the atmosphere. This humidity was derived from the most powerful of all forces—a warm ocean current,—and rendered Madeira a most desirable health station for those consumptive patients who required a humid atmosphere.

Mr. Charles Stewart, M.A., M.B., has been appointed resident surgeon for the Leith Hospital. There were a large number of applications for the position.

GLASGOW.

(*From our own Correspondent.*)

Dr. Caird on University Reform.—The Ambulance System.—Sanitary Protection Association.

THE graduation ceremony and distribution of prizes, marking the close of the winter session at the University, took place a few days ago. As is very frequently the case, the feature of the proceedings was the address by Principal Caird, who is always at his best when speaking on some

subject connected with education. His subject on this occasion was "university reform"—rather an interesting one at the present moment. As one of the evidences of the growing prosperity of the University, he pointed to the fact that during the twelve years that had elapsed since the new buildings had been occupied, the number of students had advanced from 1200 to 2300. The class-rooms, originally constructed on a very liberal calculation of future exigencies, are already full to overflowing, and the time seems near when all devices will fail to meet the growing demands on their space. This numerical progress he ascribed to changing conditions in the national life, to new interest which had lately been created in education, and especially the higher education; and the fact that most of our students are drawn from the middle and lower classes of the community is due to the value which the Scotch have always placed on education, and to the effect of the old parochial schools on the nation. Dr. Caird said that as regards reform, they all had the will to set about self-improvement, that the machinery for effecting this in a great measure exists already, but one thing is wanting which is absolutely indispensable—namely, money. The institution of an entrance examination, the extension and reorganisation of the curriculum in Arts, the founding of new chairs of history, political economy, social science, modern languages, and comparative philology, were objects towards the attainment of which little could yet be done. After referring to the parsimonious spirit in which the present Government are dealing with the University, the principal closed by saying that reliance must still, as of old, be placed on the patriotism and enlightened munificence of the Scottish public.

At the last meeting of the University Court an entrance examination scheme, of somewhat limited scope, was agreed on, to be brought into operation at the commencement of the winter session 1883. At the same meeting a committee was appointed to obtain the assistance of graduates and others in endowing a chair of Pathology in the University. The sum wanted for this purpose is £10,000 or £12,000.

The ambulance system is now tolerably well established in this city. In many of the larger works a number of the workmen have formed themselves into ambulance corps, and in the case of smaller factories several have combined for joint instruction. The new ambulance waggon had its first turn out for service a few days ago. A telegram was received at the office requesting the corps to proceed at once to Blantyre, a distance of six or seven miles; in fifty-four minutes after the telegram had been despatched the waggon with its staff arrived on the spot. The patient's injuries were dressed with the appliances in the box carried by the staff, and the man was removed to the infirmary "as comfortably as if he had been lying on his bed." Notwithstanding the good obviously effected by ambulance teaching, there are not wanting members of the profession who discountenance the whole scheme, as it tends to interfere with practice. This is specially the case in the vicinity of some of the larger works, factories, and ship-building yards, in connexion with which numerous accidents occur every year, entailing the disbursement of considerable sums to medical men for "first aid."

There has at last been established in Glasgow a Sanitary Protection Association, similar to those in existence in London, Edinburgh, Brighton, and elsewhere. Its objects will be—1st, to provide its members at moderate cost with such advice and supervision as shall ensure proper sanitary conditions in their own dwellings; 2nd, to enable members to procure practical advice, on moderate terms, as to the best means of remedying defects in houses of the poorer class in which they are interested; 3rd, to aid in improving the sanitary condition of the city by the use of such means as may, in the opinion of the council, be calculated to promote the object. The tests the Association would apply are—(1) to ascertain that all foul liquids have a free passage from the house; (2) that there is no leakage from the drains under the house into the subsoil; (3) that the whole series of drain-pipes in the house are gas-tight; (4) that the water-traps are in action.

The most important sanitary event of the past fortnight has been the admission of four cases of small-pox to the hospital, after an interval of eight months' entire absence of that disease. In connexion with these cases, thirty-four adults have been revaccinated, and six infants vaccinated at their residence.

PARIS.

(From our Special Correspondent.)

THE announcement from time to time of another death from diphtheria amongst the house-physicians attached to the children's hospitals calls attention periodically to the shortcomings of these institutions. But thanks to the vast amount of inertia which a French administration always manages to oppose to everything that savours of reform, the few indignant letters which appear in the medical press are soon forgotten, any project of improvement is quickly shelved, and the hospitals for children, continue as they have always been, a disgrace to a civilised city. Dr. Marjolin has just revived the whole question at the Academy of Medicine, and he urges the necessity of adopting some means of isolating the infectious cases from the other sick, and from the children who are sent to the Depôt des Enfants Assistés as a temporary asylum during their parents' stay in hospital. The reputation of the depôt is so bad that no parent would ever allow his child to be taken there if there were any possible alternative. A sick man has often refused to enter a hospital himself rather than see his children conducted to an establishment where they would have every chance of losing their lives, or of being returned to their friends with purulent ophthalmia, small-pox, scarlatina, or diphtheria. M. Marjolin states that it is quite common amongst the Paris poor for the neighbours of a sick family to take charge of the children in order to preserve them from the well-known dangers of the depôt. That these dangers are real may be gathered from the following case:—

—A woman was admitted to the Lariboisière Hospital. The husband, who worked away from home, being unable to look after their three children, they were taken to the depôt. Ten days later they were removed by their grandmother. Within five days from their departure they were seized with symptoms of measles, all three dying a few days later of diphtheria. There can be no doubt that this promiscuity, in the children's hospitals and refuges, of sick and healthy is an entirely detestable and inhuman thing, and if the Academy could be brought to give something like a unanimous expression of opinion, it might lead to official action, and so be the means of saving hundreds of infant lives. Such a result, however, although devoutly to be hoped for, is not to be expected, and it is most likely that the question, after some other members have exhausted themselves in eloquence, will be left precisely where it was, when the Academy first took it up.

The new Professor of Pathological Anatomy, M. Cornil, gave his opening address last week, and M. Charcot also delivered his first address from his new chair. He is now lecturing upon disseminated sclerosis. M. Redard has been making researches for the last eighteen months on the surface temperature of the thorax in pulmonary tuberculosis, with thermo-electric plates. He finds that the temperature on the side of the affected lung is often raised five or six-tenths of a degree Centigrade in acute phthisis, in ordinary phthisis during the first period, and in congestive febrile forms of the disease. This elevation of temperature is not localised to the diseased spot, but affects the whole of the diseased side from the base of the neck to the lower ribs. During the period of softening, and in chronic lung disease without fever, the results of local thermometry are absolutely uncertain. Of sixty cases the highest temperature was observed twenty-eight times on the most diseased side, and thirty-two times on the sounder side of the two. In the later periods, when cavities have been formed, the higher temperature will generally be found on the sounder side, but this is not constant. In no case was there found a local thoracic temperature greater than the corresponding axillary maximum. In short, local thermometry may afford some information in the early stage of phthisis, but its value is very limited.

M. D'Arsonval has invented an ingenious method of suppressing friction in the taking of graphic tracings. He uses a capillary jet of smoke which can be stored up beforehand in a suitable recipient. By a proper disposition of the apparatus, the jet of smoke can either be fixed before the movable paper or made to emerge through a hollow lever.

ENTERIC FEVER of a virulent type is stated to have broken out among the workmen in the Severn Tunnel, and two of them have died.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday, Lord Rosebery, in reference to a motion by the Earl of Milltown for the production of copies of the report made to the Home Office by Captain Shaw, with regard to the danger to the public from fire in theatres, said the report was to the Metropolitan Board of Works, who alone, at the present moment, were cognisant of the report. In December last the Home Secretary urged upon the Metropolitan Board of Works the necessity of some inquiry into the state of our theatres. The Board of Works desired Captain Shaw to make a report. That report was issued last March. Since that time the Board of Works had taken the matter into their consideration, and forwarded copies of it to all persons interested, including the lessees of theatres. Since that time the Home Secretary had again urged the question upon the Board of Works. By 41 and 42 Vic., chap. 32, the Board of Works had ample power to deal with the question. If they did not the Home Secretary would take such further steps as he might be advised.

In the House of Commons on Thursday, 27th ult., a petition from certain citizens of London in favour of an alteration of the Lunacy Laws was presented, as also was a London petition against the repeal of the compulsory clauses of the Vaccination Acts. Three were several petitions against vivisection, and one from the Woolhope Naturalists' Field Club in favour.

Infectious Diseases Notification.

On the motion of Mr. Hibbert, a copy was ordered of the several communications received by the Local Government Board and the Home Office from the local authorities of the several towns in England and Scotland in which local Acts are in force containing provisions which require the notification of infectious diseases, as to the operation of those provisions.

Prison Dietary.

On Friday, Mr. Alderman Fowler asked whether, in view of the verdict at a recent inquest at Chester, on a discharged prisoner, that his death had been accelerated by his dietary in gaol, the prison authorities intended to modify the lowest scale, "No. 1," of local prison dietary, at least in the cases of prisoners working at hard labour at the same time.—Sir W. V. Harcourt said he had no reason to believe that the dietary was in fault. That dietary was settled by an order of his predecessor in office, and was based upon a very careful report of a select committee. With reference to the particular case where this misfortune happened, and which had been the subject of a coroner's inquest, he might say that it arose from error and neglect on the part of the medical officer. It was now the subject of a very searching and severe inquiry.

A petition was received from Rochdale against the Infectious Diseases Notification Bill.

Sheffield Fever Hospital.

In the House of Commons on Monday, Mr. Dodson, President of the Local Government Board, replying to a question by Mr. W. Lowther, with respect to a recently erected small-pox and fever hospital at Sheffield, said it was true that the resident surgeon had been attacked lately by small-pox, but none of the nurses had been attacked. A ward attendant had been attacked, however, as well as the cook. In answer to the question whether these officials had been vaccinated before entering on their duties, he stated that the medical officer had been vaccinated and revaccinated. The cook was vaccinated in infancy, but having afterwards suffered from small-pox she was not revaccinated on entering the hospital. The ward attendant had been vaccinated as a child, and after coming to the hospital was revaccinated, but with only partial success. All these three persons were attacked very slightly, there being scarcely any rash apparent in the case of the medical officer.

A Workhouse Pig.

Mr. W. Lowther also asked whether three members of the Oldham Board of Guardians had lately taken a pig which the medical officer had ordered to be killed and burned, and sold it to a butcher for 25s.—Mr. Dodson said he had caused inquiry to be made into this matter, and it did not appear that the medical officer ordered the pig in question to be killed and burned, but had merely suggested that if it was suffering from the same malady as another one that had been taken ill, the carcase should be burned. The guardians called in a veterinary surgeon, who distinctly stated that it was fit for food.

Steerage Passengers.

Mr. Moore asked the President of the Board of Trade whether his attention had been called to the Reuter's telegram from New York, which stated that "the surgeon of the steamship ——, which has arrived here from ——, reports that the steerage passengers brought by her were, at the time they embarked, in a very weak state from want of food. Seven of them died on the passage;" whether it was really a fact that they were in an exhausted state at the time of their embarkation; and, if so, how they came to be passed by the medical officer at the port of clearance; and, if this statement be not correct, whether he would order a searching inquiry into their treatment on the voyage.—Mr. Chamberlain said he had seen a telegram from New York, which corroborated the statement that seven persons had died on the voyage referred to, but their deaths did not appear to be in any way connected with any alleged want of food. One woman died in childbirth, one man from consumption, three children died from diarrhœa, and two others from other diseases. Two of the children were under one year old, and two others under four; of the remaining 903, all were reported as arriving in good health. The sanitary inspector and the emigration officer of the Board of Trade had reported to him that they had made a careful examination of the ship before it started; that no case of infectious disease was on board; and that the accommodation was good, and in accordance with the statutory requirements. The food on board was sufficient for thirty-two days, while the voyage only occupied twelve days. If any further information could be brought forward he would order additional inquiry; but he did not see any reason for doing so at present.

A petition in favour of the Infectious Diseases Notification Bill was presented from Droitwich.

The Public Health (Scotland) Act Amendment Bill was read a second time.

Wisbech forwarded a petition, on Tuesday, in favour of the Infectious Diseases Notification Bill.

Tothill Fields Prison.

Mr. Broadhurst questioned the Secretary of State respecting a newspaper statement as to Tothill Fields Prison for Women, in which very grave charges were made as to the insufficiency of clean linen, both in respect to wearing apparel and bedding; also to the bad light and bad ventilation of the cells, and to the want of more sanitary conveniences, and to the occasional bad condition of those at present provided.—Sir W. Harcourt replied that he had caused an inquiry to be made, and the report made to him by the medical officer and the lady superintendent satisfied him that the charges were not well founded.

On Wednesday the second reading of the English and Irish Bills providing for the compulsory notification of infectious diseases was further deferred to Wednesday, the 17th inst.

Amongst the notices of questions for Thursday was one by Mr. T. D. Sullivan as to the bad quality of the water-supply of Mullingar, but owing to the interregnum in the office of the Chief Secretary for Ireland it was postponed.

Brewing Materials.

Mr. Heneage has given notice that, on the second reading of the Budget Bill, he will move, "That the use of rice, maize, or any concocted articles as substitutes for malt in brewing is injurious to the health and welfare of the working and poorer classes, whilst it is detrimental to the interests of agriculture; and that, in the opinion of this House, only liquor brewed from sugar, malt, and hops should be permitted by law to be sold under the name of beer."

CAMBRIDGE UNIVERSITY.—Mr. G. E. Wherry, M.B., M.C., of Downing College, has been approved as a teacher of Obstetric Medicine. The following have been appointed examiners in State Medicine:—Dr. A. W. Barclay, Caius; Dr. A. Ransome, Caius; F. S. B. de Chaumont, M.D., Edinburgh; Mr. W. H. Corfield, M.D., Oxford.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. — On the 27th ult. the following gentlemen were admitted Members of the College :—

Batho, Robert, Plymouth.
Chattopadhya, Aughorechunder, Camden-street.
Hebb, Richard Grainger, M.D. Camb., Hart-street.
Myers, Arthur Thomas, M.D. Camb., Hereford-gardens.
White, William Henry, M.D. Dub., Weymouth-street.

On the same day the following gentlemen were admitted Licentiates of the College :—

Booth, Edward Hargrave, Guy's Hospital.
Butler, William John, Holland-road.
Cock, John, Guy's Hospital.
Daunt, Elliot, Ditchling, Hurstpierpoint.
Giles, Oswald, St. George's Hospital.
Hamilton, John Harry, Hollywood-road.
Heelis, Robert, North Lonsdale Hospital, Barrow-in-Furness.
Hunt, Robert, Preston.
Jackson, John Charles, Wellington-road.
Jones, Albert Edward, Eglwysdan Vicarage, Pontypridd.
Karanjia, Merwanji Dhunjibhai, Surrey Lodge, Herne-hill.
Linney, William Wyckliffe, Queen's-crescent.
Macnamara, Hugh Winckworth, Westminster Hospital.
Marras, Ernest Adrian, Halsey-street.
Mudge, Thomas, Claremont-square.
Muriel, Cecil Jeffery, St. Bartholomew's Hospital.
Nicholls, John Michael, Yeovil.
Owen, John Morgan, Fishguard, Pembroke.
Perks, Robert Howell, Guy's Hospital.
Petherick, Wallace, Brompton-crescent.
Rushworth, Norman, Bernard-street.
Scott, Alfred, Lower Rock Gardens, Brighton.
Stokes, Lennard, Blackheath.
Stretton, John Lionel, St. Bartholomew's Hospital.
Sutton, John Bland, Middlesex Hospital.
Walker, Francis John, Spilsby.
Waller, Theodore Harry, Guilford-street.

The Murchison Scholarship has been obtained by
Charles F. Caxwell, M.B., St. Thomas's Hospital.

The following has been specially commended :—
Sidney H. C. Martin, University College Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 27th and 28th ult., and on the 1st, 2nd, and 3rd inst. :—

George B. Hoffmeister, Cambridge and St. Bartholomew's Hospital; Thomas E. Dyson, Thomas S. Lawry, S. H. Wilson, James H. L. Allott, Norman H. Walker, Edwin A. Chill, James Craig, James M'Leod, and Richard Vassie, Edinburgh; George L. Rugg, Charles G. Lermitte, George A. F. Inman, Lewis Way, Jabez P. Brooks, and Arthur E. Parr, King's College; Richard Lake and Chas. A. Lucas, St. Thomas's Hospital; Thos. W. Thomas, Geo. H. Hunter, Francis W. H. Day, and Julius Schade, University College; Jas. E. Williams, Edwin Gill, John G. Wilson, Herbert Williams, Jas. J. W. Stevens, Harry V. Walker, Walter F. Moore, George P. Newbolt, and Sidney J. Palmer, St. Bartholomew's Hospital; William E. Thomas, Chas. E. Humphreys, and William A. Wetwan, London Hospital; Thomas A. Holme, University College and Edinburgh; Walter S. Thomson and John K. Frost, Middlesex Hospital; Geo. J. A. Tuke, Madras and University College; Herbert A. Kent, St. George's Hospital; Joseph G. Harsant and Robert J. Kerby, Guy's Hospital; Robert Wrigley, S. K. Alcock, Edward V. Brown, Henry W. Gell, Reginald Pollard, Thomas W. B. Burn, Frank E. Mathews, and Herbert W. Austin, St. Bartholomew's Hospital; E. K. O'Connor, Ernest E. Batt, John B. Fowler, Joseph R. Adie, and Philip D. Turner, University College; Clarence E. L. Gilbert and Leonard Roberts, St. Mary's Hospital; James H. Ferguson, Archibald Donald, Lloyd G. Smith, Henry S. Lloyd, Chisholm Ross, A. Macfadyen, W. D. Brydone-Jack, and Theodore H. Barker, Edinburgh; O. Johnson, A. F. Dimmock, Robert L. Hildyard, and William K. Dale, King's College; Westley Carnock, Cambridge and London Hospital; Geo. Bent, St. Thomas's Hospital; L. M. Guilding, Edmund W. Paul, and Henry G. Nicholson, Middlesex Hospital; Percy V. Jackson, London Hospital; Maughan Mercer-Adam, St. George's Hospital; James Wilding and Joseph T. Boyd, Westminster Hospital; Geo. H. Johnson, Leeds and St. George's Hospital; Thos. H. R. Crowle, William T. Cocking, and William Lees, University College; Frank W. Langridge, S. E. Prall, John H. Bilght, and James H. Sellick, Guy's Hospital; Straton B. Barns, Arthur Fuller, G. Nienwondt, John S. Haldane, and William L. Price, Edinburgh; Percy G. Lewis, King's College; Charles E. Dumbleton, Cambridge and Middlesex Hospital; E. C. Freeman, St. Thomas's Hospital; Norman H. Forbes and E. J. Penny, Middlesex Hospital; William H. Candell, St. Mary's Hospital; R. Courteen, Westminster Hospital.

UNIVERSITY OF ABERDEEN. — At the late medical graduation term, the following candidates, after the usual examinations, received the Degree of M.D. :—

Ackroyd, George, M.B., C.M., Streatham.
Blomfield, Arthur G., M.B., Devon and Exeter Hospital.
Boswell, Alexander, M.B., Ashbourne, Derbyshire.
Burgess, Peter, M.B., C.M., Ballindalloch.
Campbell, Colin M'Iver, M.B., C.M., Durham County Asylum.
Davison, Rashell Thomas, M.B., Battle, Sussex.
Davy, John, M.B., C.M., Halifax.
Elliott, Frederic Hawes, M.B., C.M., Andover, Hants.
Hall, John George, M.B., C.M., Aberdeen.
Harris, John, M.B., C.M., Newcastle, New South Wales.
Macdonald, Coll Reginald, M.B., C.M., Beith, Ayrshire.
Macdonald, William, M.B., C.M., Inverness.
Mukhopadhyáy, Satish Chandra, M.B., C.M., Calcutta.
Purkiss, Arthur, M.B., C.M., West Brixton, London.
Thomson, John, M.B., C.M., Kendal.
Webb, Wm. Edward, M.B., C.M., Burnley, Lancashire.

The following received the Degrees of M.B. and C.M. :—

Barrett, John, Peninsular and Oriental Service.
*Bremner, James, Grange, Keith.
Collie, John William, Aberdeen.
Collie, Robert John, Aberdeen.
*Cran, Alexander, Cabrach, Banffshire.
Eddie, Arthur William, Aberdeen.
†Griffith, Thomas Wardrop, Aberdeen.
Henderson, David, Watten.
Hodgson, Joseph Willoughby, Brighton.
Holmes, William Reid, Aberdeen.
Jenkyns, John, Aberdeen.
‡Knight, George David, Skene, Aberdeenshire.
Macdonell, James Alexander, Dufftown.
Mackie, Alfred Alexander, Aberdeen.
Maxwell, Charles Mayne, Hobart, Tasmania.
M'Lean, Alexander, M.A., Coull, Aberdeenshire.
Middleton, James, Auchindoir.
Nicoll, James Robert, M.A., Rhynie.
Phillips, Henry Astley, London.
Rattray, John Moysey, M.A., Aberdeen.
Reid, John, M.A., Portsoy.
Rigby, Charles Samuel Alfred, Preston.
Ross, William Pyle, M.A., Aberdeen.
Sarkies, Carrapiet John, Calcutta.
Sinclair, William Nigg.
*Taylor, John, Stonehaven.
Thomson, Thomas Pickthorn, Gartly.
Walker, John, St. Vincent, West Indies.
Weir, Richard Ross, Elgin.
*Wilson, James, M.A., Rhynie.
Wilson, John Henry, Warwick.
Wright, Martenaz James, Colombo.

* Honourably Distinguished.
† Received Highest Academical Honours; also awarded the John Murray Medal and Scholarship.
‡ Received Highest Academical Honours.

The following candidates were certified as having passed all the examinations, but did not graduate.

Brown, Henry Herbert. | Leslie, John Tasman Waddell.
Hudson, Francis Joseph. | M'Kinnon, David Reid.
Rennie, Arthur.

The next Professional Examination for Degrees in Medicine commences on Saturday, July 22nd.

UNIVERSITY OF DURHAM. — At the first examination for the Degree of Bachelor in Medicine, held during the last week of March, the following candidates satisfied the Examiners :—

SECOND CLASS HONOURS.—Cornelius C. Caleb.

Blackwood, F. N.
Brown, Percy, M.R.C.S., L.S.A.
Bryan, Fred.
Edwards, W. R.
Giles, F. W., M.R.C.S., L.S.A.
Gordon, Thos. E.
Greenwood, F., M.R.C.S.
Grinling, J. C., M.R.C.S.
Hill, George Rome.
Harper, Alexander.
Hillstead, H. J.
Hughes, H. M.
Laidler, A. G.
Larking, A. E.
Openshaw, T. H., M.R.C.S., L.S.A.
Revely, J. S.
Richards, O. W.
Simmons, E. W.
Wakefield, M. T.
Watson, James.
Welch, S., M.R.C.S.
Wigham, W. H.
Willett, G. G. D., M.R.C.S.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 27th :—

Blampied, John William, Jersey.
Brown, Richard, Blaydon-on-Tyne.
Hart, Herbert Wheatley, Upper Richmond-road, Putney.
Smith, Wm. Arthur Winwood, Kensington-gardens-square.

The following gentlemen also on the same day passed the Primary Professional Examination :—

Robert W. Doyne, St. George's Hospital; John M. Carroll and Alfred F. Peskett, London Hospital; William Holdsworth, Leeds Hospital; Wm. Henry Bean and Marmaduke Pittard, Charing-cross Hospital.

At the Preliminary Examination in Arts, held at the Hall on April 20th and 21st, 134 candidates presented themselves, of whom 62 were rejected, and the following 72 passed and received certificates of proficiency in General Education :—

FIRST CLASS (in order of merit).—R. M. M. Hicks-Beach, J. G. Carter.

SECOND CLASS (in alphabetical order). — A. E. Barlow, N. D. Best, W. G. Beyts, S. Bingham, E. H. Blake, R. T. H. Bodilly, R. J. Braye, H. E. D. Brockman, R. P. Brooks, Charles Brown, Edgar Cane, Wm. Hy. Charles, H. Cockerton, T. S. Coghlan, H. A. Debenham, J. Delleny, H. B. Densham, R. W. Dickinson, R. J. Douglas, C. A. Ducket, W. R. Duneker, Edw. Price Farber, J. A. W. Gentles, F. Gilpin, A. E. Gresham, G. P. V. Grey, H. O. W. Harris, C. Williams Hayward, G. L. Hill, R. Hitchings, A. H. Hoffman, C. W. Hogarth, N. R. House, H. Ingle, W. M. M. Jackson, C. Henry James, J. F. W. Jewel, W. H. Lewis, F. H. Lows, W. A. Loxton, W. L. Mathias, H. Meggott, E. W. Morris, J. Naylor, F. A. W. Nicholas, J. Nixon, A. H. Nott, C. P. O'Connor, G. S. Olivey, T. E. Pallett, C. O. Parsons, E. F. Pratt, H. N. Pullan, W. G. Reily, E. S. Robinson,

L. Salter, H. F. S. Sandifer, R. Shannon, E. C. Stabb, W. E. Sturge-Jones, A. M. Sturges, R. F. Thomas, S. A. Tidy, F. W. Toms, A. H. Vernon, A. H. Ward, J. K. Warry, A. F. Wilson, J. A. Wood, G. C. W. Wright.

The following were also approved in Elementary Mechanics: R. P. Brooks, J. C. Carter, W. R. Duncker, C. W. Hayward, A. H. Vernon, J. K. Warry, Ralph Hodgson.

ROYAL SOCIETY.—The Council of the Society have selected the following fifteen from fifty-two candidates for the Fellowship who have presented themselves during the present year. The election will take place on Thursday, June 8th, at 4 P.M. The names are:—Professor V. Ball; Dr. G. S. Brady; Dr. George Buchanan, F.R.C.P.; C. Baron Clarke; Francis Darwin, M.A., M.B., F.L.S.; Professor W. Dittmar; Dr. W. H. Gaskell; Mr. J. R. T. Glazebrook; Mr. F. Ducane Godman; Mr. Jonathan Hutchinson, F.R.C.S.; Professor A. Liversidge; Professor J. Mallet; Mr. W. D. Niven; Mr. R. H. Inglis Palgrave; and Mr. W. Weldon.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the annual meeting of this institution, held on Monday, May 1st, the report of the Committee of Visitors for the year 1881, testifying to the continued prosperity and efficient management of the institution, was read and adopted. The real and funded property now amounts to above £35,400, entirely derived from the contributions and donations of the members. Fifty-two new members paid their admission fees in 1881. Sixty-two lectures and nineteen Friday evening discourses were delivered during that year; and the books and pamphlets presented amounted to about 270 volumes, making with 623 volumes (including periodicals bound) purchased by the managers a total of 893 volumes added to the library in the year. The following gentlemen were unanimously elected as officers for the ensuing year:—President: The Duke of Northumberland, D.C.L., LL.D. Treasurer: George Busk, Esq., F.R.S. Secretary: William Bowman, Esq., LL.D., F.R.S.

UNIVERSITY OF LONDON.—The following examiners in Medicine, Surgery, and the Collateral Sciences were elected at a recent meeting of the Senate:—Practice of Medicine: W. H. Dickinson, M.D., and C. Hilton Fagge, M.D.—Surgery: Sir William MacCormac, M.Ch., M.A., and Professor John Wood, F.R.S.—Anatomy: H. Greenway Howse, M.S., M.B., and Professor Redfern, M.D.—Physiology: Professor Arthur Gamgee, M.D., F.R.S., and Philip Henry Pye-Smith, M.D., B.A.—Obstetric Medicine: J. M. Duncan, M.D., LL.D., F.R.S.E., and Henry Gervis, M.D.—Materia Medica and Pharmaceutical Chemistry: Professor E. R. Baxter, M.D., and Professor F. T. Roberts, M.D., B.Sc.—Forensic Medicine: Augustus J. Pepper, M.S., M.B., and Professor George Vivian Poore, M.D., B.S.—Chemistry: Professor Dewar, M.A., F.R.S., and Professor T. E. Thorpe, Ph.D., F.R.S.—Botany and Vegetable Physiolgy: W. T. Thiselton Dyer, M.A., B.Sc., F.R.S., and Sydney H. Vines, D.Sc., M.A.—Comparative Anatomy and Zoology: Professor Alexander Macalister, M.D., M.A., F.R.S., and Professor A. Milnes Marshall, D.Sc., M.A.—Geology and Palæontology: Professor P. Martin Duncan, M.B., F.R.S., and R. Davies Roberts, D.Sc. M.A.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BENSON, ERNEST W., M.R.C.S., L.S.A.Lond., B.A.Cantab., has been appointed Assistant House-Surgeon to King's College Hospital.

BOOBBYER, PHILIP, M.R.C.S., has been appointed House-Accoucheur to King's College Hospital.

BRECKNELL, WILLIAM HENRY, M.D.St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Hedgerley District of the Eton Union.

CROOKSHANK, EDGAR M., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

CUPPAIDGE, JOHN LOFTUS, M.B.Dub., has been appointed Medical Officer to the Hospital of St. George, Queensland.

FLETCHER, HOWARD BENNETT, L.S.A.Lond., has been appointed Junior Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary.

JONES, WM. LEWIS, L.R.C.P.Ed., L.F.P.S.Glas., has been reappointed Medical Officer of Health to the Llandilofawr Rural Sanitary District.

KERSWILL, J. BEDFORD, M.R.C.P.Ed., M.R.C.S., F.L.S., has been reappointed Medical Officer of Health to St. Germans Rural Sanitary District.

LOVERIDGE, ARTHUR WILLIAMS, M.R.C.S., L.S.A.Lond., has been appointed Junior House-Surgeon to the Huddersfield Infirmary, vice Prentice.

PHILLIPS, EDWARD, L.R.C.P.Ed., has been appointed Assistant Resident Medical Officer to the Children's Hospital, Birmingham.

POLLARD, JOSEPH, M.R.C.S., L.S.A.Lond., M.A.Cantab., has been appointed House-Surgeon to Prof. Lister at King's College Hospital.

RABBETH, SAMUEL, L.S.A.Lond., has been appointed House-Physician to King's College Hospital.

SHORTER, HENRY GOLDSWORTHY, M.R.C.S., L.S.A.Lond., Paragon House, Hastings, has been appointed Surgeon to the Hastings and St. Leonards Borough Police, vice B. H. Allen, M.D., resigned.

STEVENSON, M.D., F.R.C.P.Lond., has been reappointed Public Analyst for the Borough of Godalming.

STEWART, FRED. GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Second District of the Bodmin Union.

STIVENS, BERTRAM H. L., M.R.C.S., has been appointed Assistant House-Accoucheur to King's College Hospital.

THOMSON, ST. CLAIR, M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Physician to King's College Hospital.

TOMKINS, HENRY, M.D.Q.U.I., M.R.C.S., L.S.A.Lond., has been re-appointed Resident Medical Officer to the Fever Hospital, Monsall, Manchester.

VERITY, ABRAHAM JOHN, M.R.C.S., has been reappointed Medical Officer of Health to the Bridgend Urban and Central Rural Districts.

WORTS, EDWIN, M.R.C.S., L.R.C.P.Lond., L.S.A.Lond., has been appointed Surgeon to the Essex and Colchester General Hospital, vice Roger Sturley Nunn, M.R.C.S., deceased.

Births, Marriages, and Deaths.

BIRTHS.

ADAM.—On the 29th ult., at Fernhead-road, St. Peter's-park, the wife of C. Donovan Adam, L.R.C.P.Lond., M.R.C.S., of a daughter.

COOMBS.—On the 30th ult., at Redburn, Spring-grove, St. Cuthbert's, Bedford, the wife of Rowland H. Coombs, L.R.C.P., M.R.C.S., of a son.

DARLEY-HARTLEY.—On March 21st, at East London, Cape Colony, the wife of W. Darley-Hartley, M.R.C.S., L.R.C.P., of a son.

FRANCIS.—On the 21st ult., at Brecknock House, Bourton, Dorset, the wife of George P. Francis, L.R.C.S., L.A.H.Dub., of a son.

MARRIAGES.

BENNETT—THOMAS.—On the 27th ult., at Palumpur, Kangra Valley, Surgeon-Major J. Bennett, M.D., H.M.'s Bengal Army, to Sophia Julia, youngest daughter of David Thomas, Esq., of Watton House, Brecon.

GREENE—DOWNES.—On the 29th ult., at St. Peter's, Rickmansworth, by the Rev. C. Wallace Nield, M.A., Vicar, and the Rev. J. H. Bock, M.A., Reginald Latimer Wellington Greene, L.R.C.P., L.R.C.S.Ed., of Stratford-on-Avon, fifth son of the Rev. Wm. Greene, M.A., formerly Vicar of Antrim, to Ethel Mauney, eldest daughter of the late Richard Izod Downes, and niece of Thomas Ring Downes, of Downesbury, South Hampstead.

HIRSCHL—HICKS.—On the 22nd ult., first at the Municipio, and afterwards at the English Episcopal Church, Leghorn, Lajos Kossuth Hirschl, M.D., late Resident Physician, General Hospital, Vienna, to Lydia Ann, second daughter of the late Thomas Hicks, Esq., J.P., of Derreenatra Manor, county Cork, and Upton-grove, Torquay.

JACKSON—BILNEY.—On the 27th ult., at the Parish Church, Barnstaple, North Devon, Henry Jackson, M.R.C.S., of Barnstaple, to Rose Harriet, only daughter of James Bilney, also of Barnstaple.

MORRIS—ROBERTS.—On the 29th ult., at the Parish Church of Llangynidr, by the Rev. Herbert G. Griffith, Incumbent of Tretower, assisted by the Rev. Henry T. Harris, Rector of Llangynidr, William A. Morris, Surgeon, Army Medical Department, to Edith, youngest daughter of H. Beaver Roberts, Esq., J.P.D.L., of Bangor, Carnarvonshire.

SAVAGE—SUTTON.—On the 3rd inst., at St. Mary's, Kippington, Dr. Savage, Bethlem Hospital, to Adelaide Mary, eldest surviving daughter of Dr. Sutton, of Finsbury-square and Sevenoaks.

TWIGG—MORRIS.—On the 25th ult., at St. Mary's Church, Harrow-on-the-Hill, George Despard Twigg, Surgeon, Royal Navy, youngest son of the late Rev. Samuel Twigg, Rector of Tamlaght, county Armagh, to Mary Anne Edith, third daughter of the late Lieut.-Colonel William John Morris, H.M.'s Bombay Army.

TWINING—HOUNSHAM.—On the 27th ult., at St. Philip's, Dalston, Alfred Hughes Twining, M.R.C.S., of Salcombe, South Devon, fifth son of Edward Twining, M.R.C.S., of The Chestnuts, Walthamstow, to Georgiana Edith, third daughter of the late J. B. Hounsham, Esq., of Ipswich.

WATT—NIDRAY.—On the 27th ult., at Watson-street, Aberdeen, George Watt, M.D., of Aberdeen, to Mary, eldest daughter of C. Nidray, Esq., late builder, of Aberdeen.

DEATHS.

BIGGS.—On the 27th ult., at Green Park, Bath, Robert Biggs, M.R.C.S., Deputy Coroner for North Somerset, aged 53.

CURRIE.—On the 29th ult., suddenly, at Southport, John Currie, L.R.C.S.Ed., aged 74.

M'RAE.—On the 20th ult., at Fetterosk, Penicuik, Alexander E. M'Rae, M.D., aged 40.

POLLARD.—On the 23rd ult., at Notley Lodge, Putney, Surgeon-Major W. H. E. Pollard, late of H.M.'s 108th Regiment, aged 52.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, May 8

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, May 9.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. E. B. Tylor, "On History of Customs and Beliefs."
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Dr. J. Beddoe, "On the Evidence of Surnames as to Ethnological Changes in England."—Mr. J. Park Harrison, "On the Survival of certain Racial Features in the Population of the British Isles at the present day."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Makuna, "On the Ectrotic Treatment of Varioles in Small-pox."—Mr. W. J. Tivy (of Clifton) "On Double Inguinal Hernia, treated by Wood's Radical Cure."

Wednesday, May 10.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.—Skin Department.—1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M.

Thursday, May 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Metals."
HARVEIAN SOCIETY.—Dr. John Williams, "On a Fatal Case of Oöphorectomy."—Mr. Noble Smith, "On the Treatment of Caries of the Vertebræ."
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8½ P.M. Dr. Brailey: (1) Microscopical Specimens from Mr. Mason's Sclero-corneal Tumour; (2) Specimen of Disease of Optic Nerve in Retinal Detachment.—Mr. Snell, "On a Case of Sympathetic Ophthalmitis following Enucleation."—Mr. Adams Frost, "On a Case of Sympathetic Ophthalmitis following Enucleation."—Mr. Anderson Critchett, "On a Case of Bony Tumour of Conjunctiva."—Mr. Oglesby, "On Miner's Nystagmus."—Mr. Swanzy: (1) "On Detachment of Vitreous Humour causing Blindness;" (2) "On a Case of Primary Tubercle of Iris."—Mr. Mules, "On a Case of Tubercular Inflammation of Eyeball."—Mr. Adams Frost, "On a Case of Intraocular Hæmorrhage after External Injury of Eye."—Mr. Lang and Dr. W. A. Fitzgerald: (1) "On the Movements of the Eyelids in Relation to the Movements of the Eyes;" (2) "On a Case of Homonymous Insular Scotomata."—Mr. C. E. Fitzgerald, "On Ophthalmological Notes."—Mr. Juler, "On a Refraction Ophthalmoscope" (card).—Mr. A. H. Benson, "On Extreme Tortuosity of Retinal Vessels without Disease" (card).—Living Specimens (8 P.M.):—Dr. Sansom, "On Exophthalmos without Thyroid or Cardiac Symptoms." Mr. M'Hardy: (1) "On a Case of Transportation of Skin two months after Operation;" (2) "On a Case of Black Cataract."—Mr. Mackinlay, "On a Case of Teale's Operation for Symblepharon."

Friday, May 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. A. G. Vernon Harcourt, "On Different Modes of Lighting."
CLINICAL SOCIETY OF LONDON.—Mr. Thomas Smith, "On a Case of Aneurismal Varix of the Forearm" (patient will be shown).—Mr. Holmes: (1) "On Removal of an Epitheliomatous Ulcer of the Leg by Scraping"; (2) "On Removal of Multiple Loose Cartilages from the Knee-joint."—Dr. Althaus, "On a Case of Cerebro-spinal Syphilis."—Dr. Ord, "On a Case of Disorder of Movement following Hemiplegia" (patient will be shown).

Saturday, May 13.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. F. Pollock, "On the History of the Science of Politics."

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 4th, 1882.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Apl. 28	29·20	N.	49	48	..	69	40	0·14	Fine
,, 29	29·50	W.	45	51	..	52	38	0·08	Bright
,, 30	29·51	S.W.	52	48	..	57	36	0·10	Cloudy
May 1	29·61	S.W.	49	46	..	60	36	..	Cloudy
,, 2	29·91	S.W.	54	49	..	62	43	..	Bright
,, 3	29·79	E.	56	52	..	71	47	..	Overcast
,, 4	29·63	S.E.	54	52	..	56	50	·12	Raining

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

INFLAMMATION OF THE EYES IN NEW-BORN CHILDREN.

SOME years ago the above subject received the attention of the Congress of Instructors of the Blind which met at Dresden. Herr Reinhardt, director of the local blind asylum, on that occasion expressed his opinion that the majority of blind children had lost their sight through inflammation, and attributed its disastrous effects to the prevailing ignorance amongst the lower orders of the absolute need for skilled medical treatment in such cases. The statistics of twenty-two blind asylums in Germany for ten years (1865 to 1875) show that 40 per cent. of the patients therein received had lost their sight from this cause during their early infancy. In accordance with resolutions adopted recommending the diffusion of sound knowledge upon this important subject, several medical men in Germany have lately given currency in the press to their personal experiences. Dr. Coleman, of Barmen, an oculist, recently gave in the *Kölnische Zeitung* some details of interest, and referred to two cases in which each child had lost one eye before medical aid was called in. Dr. Samelsohn, of Cologne, in discussing the various features of this malady, remarks: "Inflammation of the eyes in the case of new-born children does not usually arise, as many consider, from unknown influences of the weather or from exposure to a too powerful light, but rather from the eyes at birth receiving the contact of a contagious substance, the sources of which are abundant amongst the lower classes of the population, particularly in large cities." According to Dr. Samelsohn's observations, the symptoms of this malady do not appear immediately after birth, but between the third and fifth days of the infant's life. The child, which has hitherto opened its eyes freely, now closes them obstinately against the light, and becomes restless; while a swelling of a more or less important character affects the inflamed eyelids, and from the opening of the lids there flows matter of a yellowish colour. If this suppuration cannot be arrested the cornea is often destroyed, and the power of vision irretrievably lost. With respect to the most effectual remedies, Dr. Coleman remarks that the eyes have been successfully disinfected "By dropping into the eyes immediately after birth solutions of 2 per cent. of carbolic acid or nitrate of silver, and by fomentations of a solution of salicylic acid during the first twenty-four hours, with a view of preventing the outbreak of the disorder."

Dr. Whitelegge (Sheffield).—Too late for our present number.

Primus in India has omitted to enclose his card.

Mr. C. W. Bellamy.—We cannot at the moment recall an instance in point, but we think it not unlikely the disease may be conveyed in the way described.

DEATH FROM A MIXTURE OF CHLOROFORM AND ETHER.

THE *Canada Lancet* states, a man who had to undergo amputation of the great toe for frost-bite had a mixture of chloroform and ether administered as an anæsthetic. Drs. Barrows and Coulter, of Lindsay, examined him, and found no reason to suspect any visceral disease. At no time of the operation was the patient thoroughly under the influence of the anæsthetic, but at the conclusion of the operation his breathing was natural. Suddenly he gave a gasped sigh, and a moment later expired.

NON-RECOGNITION OF NEW COMERS.

A CORRESPONDENT complains that, after six months' residence, he is not recognised by his medical brethren, and his calls are not returned. Such an experience must, we think, be rare. He acted quite courteously in calling on the previous residents, though the custom varies in different places.

THE name of Mr. Edwin Saunders was omitted from the list we published last week of medical gentlemen who attended the levée on the 24th ult.

A Surgeon might apply to Moore and Co., St. Mary-axe, E.C.

Audi Alteram Partem.—The discussion cannot be continued in our columns.

Mr. Charles Hawkins.—Next week.

Civil Surgeon.—We do not see any advantage in publishing the note.

"SOUTH AFRICA AS A FIELD FOR MEDICAL PRACTICE."

To the Editor of THE LANCET.

SIR,—My letter on the above subject having called forth adverse criticism at the hands of "A South African Subscriber," I beg to offer a few remarks in justification of my previous statements. Your correspondent does not inform us from what part of South Africa he hails, which is a most important feature in the case, since, as I remarked before, South Africa is a very large place, and there are, so to speak, Edens and "Saharas" to be found in plenty. In speaking of the high prices of provisions, I referred, or intended to do so, more especially to Kimberley and district, where I can vouch for the truth of my statement, and can also speak from personal experience with regard to the high price of many necessaries in the ports which your correspondent has visited. If it were not so, how is the freight paid for in those articles (and they are many) which are imported from England? With regard to Kimberley, where, as I remarked, the most remunerative practice is to be obtained, there is not a fruit tree in the place, all fruit being brought from a distance, and sold at enormous prices. That your correspondent must be in an exceptionally favoured spot seems evident, not only from the features of the locality, which necessitate "long rides over rough country," and a "distance of thirty miles from a colonial town," but also from the unusual success of being able in so short a time to earn £50 a month for exile such as he describes. That this sum, in itself unusual, is but small compensation, I beg to submit to the consideration of those who have tried it; and that it is unusual is, I think, fully borne out by a letter which was published some few weeks since from a medical man at present practising in the colony.—I am, Sir, yours truly,

Hampstead-road, N.W., April 28th, 1882. JAS. S. MCDONAGH.

EXCLUSION OF UNFIT PERSONS FROM MEDICAL AID SOCIETIES.

THE honorary secretary of the Wandsworth Medical Aid Society says, "We make as much provision as possible for the exclusion of unsuitable cases. We find that any artificial limit is impracticable, so each case is decided on its merits, the medical attendants being at liberty to decline attendance on anyone whose circumstances appear to them unsuitable." It is desirable, of course, not to throw this unpleasant duty on the medical man. The unsuitability should be discovered by others, and beforehand.

THE METROPOLITAN SELF-SUPPORTING DISPENSARY (SHAFTESBURY-PARK BRANCH).

THE terms of this establishment are very curious. Advice is free; to meet the working expenses of the institution, a charge of 6d. will be made; for a visit at a patient's residence, 1s. This may be called self-supporting, but we cannot see how it is to support anybody or anything; and it would be interesting to know the qualifications of the registered practitioner who could let himself out on such terms.

TREATMENT OF WHOOPING-COUGH.

To the Editor of THE LANCET.

SIR,—If Dr. Wharry will refer to Dr. Napheys "Modern Medical Therapeutics," seventh edition, 1880, page 531, he will see "croton chloral has been highly praised by recent writers," &c. I have found a mixture of bromide of potassium and belladonna internally, combined with mild sinapism to the skin over the spinal column (not carried to the extent of blistering) very effectual. The latter hint I think I obtained from your own columns.—I am, Sir, your obedient servant,

A. PHILLIPS HILLS.

Prince of Wales-road, Battersea-park, S.W.,
May 2nd, 1882.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

AT the written portion of the primary examination in Anatomy and Physiology for the diploma of membership of the College on the 21st ult. the following were the questions in Anatomy, four of which, and no more, were required to be answered, between 1 and 3 o'clock:—

1. Describe the muscles which connect the hyoid bone with the bones of the head. Give the nerve-supply to each muscle.
2. Give the dissection required to expose the triangle at the bend of the elbow, and describe the contents of that space in their relative positions.
3. Describe the course and relations of the vas deferens from its commencement to its termination.
4. Describe the attachments and the relations of the left psoas magnus muscle.
5. Describe the origin, course, and distribution of the superior intercostal artery and its branches.
6. Describe the arrangements by which the tendons of the flexors and extensors of the toes are attached to the phalanges.

The following were the questions on Physiology, to be answered from 4 to 6 o'clock:—

1. In what manner are bread, meat, butter, and potatoes digested? With such a diet what would be the composition of the fæces.
2. Describe the termination of nerve-fibres in striated muscle. What changes does muscle undergo when permanently separated from nervous control?
3. Describe the minute structure of the trachea, and state the functions fulfilled by its several tissues.
4. In what tissues of the body is glycogen found? How may it be separated, and what are its characters?
5. What is understood by the term blood-pressure? What are the circumstances by which it is modified?
6. What is meant by the term "vaso-motor nerve?" Give examples of such nerves? Explain how active dilatation may be produced by nerve-stimulation.

There were 220 candidates, against 185 in the corresponding period of last year, showing an increase of thirty-five.

Palmam qui meruit ferat.—The qualifications named give no sanction to the use of the title. Men using the title on such grounds would incur disrespect. We should not advise recourse to law as a remedy, but the law assumes that titles are real, and not false.

Blackfriars will best get the information by inquiring at head-quarters.

Mr. Woodyeare Ryton.—The question is interesting, but it is more easy to point to the fact than to alter it.

A Competitor.—The award for the Jacksonian Prize has already been made. The secretary, on receipt of the motto, will doubtless deliver up the "rejected address."

"PUFFING FRIENDS."

IN reference to the notice headed as above in our last impression, we are glad to extract the following from the same paper in which the objectionable paragraph appeared:—

"The paragraph we inserted in our last issue, under the heading 'Clever Operation in Surgery,' was received from a duly authenticated correspondent, and entirely without any knowledge on the part of Dr. Thomas, the medical gentleman to whom it referred."

A CAUTION.

Mr. Berkeley Hill desires to warn his medical brethren against a man who applies for help under the plea that he has lost his property through farming in New Zealand. He professes to be known to and to be recommended by prominent members of the profession.

Curious.—1. The quantity of urine passed by a phthisical patient depends on renal complications.—2. Moderate smoking of mild tobacco is not injurious in phthisis.

T. G.—There is a portrait of the late Mr. John Hilton in the College of Surgeons, presented by his widow.

A Fellow by Examination.—Mr. John Croft, surgeon to St. Thomas's Hospital, is a member of the Court of Examiners of the College of Surgeons, and will, we believe, offer himself for a seat in the council of that institution at the annual meeting of Fellows in July next. Mr. Baker, of Birmingham, will probably offer himself for re-election.

OTORRHŒA.

To the Editor of THE LANCET.

SIR,—In the course of ordinary practice I have found otorrhœa in many instances a most obstinate affection to treat. At present I have a case in which a sero-purulent discharge from the external auditory canal persists, in spite of all the ordinary methods of treatment by astringent injections, &c. No polypus or other local cause exists except the chronic inflammation of the meatus. I shall be thankful to hear from some of the readers of THE LANCET what local medications they have found most effectual in arresting this troublesome ailment.

I am, Sir, your obedient servant,

May 1st, 1882. JUNIOR.

TREATMENT OF ECZEMA BY ANIMAL CHARCOAL.

Assistant-Surgeon Onocool Chunder Chatterjee recommends in the *Indian Medical Gazette* for April 1st the use of animal charcoal in eczema when of the decidedly vesicular form and confined to the extremities. The remedy was employed with great success by the reporter whilst in charge of the Raj Hospital, in the district of Durbhanga. It should be freshly prepared, and applied in the form of an ointment, in the proportion of two drachms to one ounce of perfectly sweet oil or cerate.

Mr. John Deane.—We believe there is no regulation existing to render our correspondent ineligible for the post mentioned. The clerk to the Board should be able to give an authoritative opinion.

Mr. Bland.—1. The age is unlimited.—2. Application should be made to the General Medical Council Office, Oxford-street; or, if preferred, to the Apothecaries' Society, Blackfriars.

THE letters of *Dr. Hunter Mackenzie, Mr. Wyatt, Mr. Martin, M.R.C.S.*, and other correspondents are unavoidably held over till next week.

CORONERS' FEES TO SURGEONS OF POOR-LAW HOSPITALS.

To the Editor of THE LANCET.

SIR,—In your issue of March 18th I find the following:—"But we are informed that the magistrates object to the payment of the medical officers of Poor-law infirmaries, and it must be allowed that such institutions come under the head of any public hospital or infirmary, though supported neither by endowments nor voluntary subscriptions."

I will assume that the gentleman who wrote the above has derived his inspiration from some one, but, if so, it is to be regretted that he has not been a little more definite in defining who are the magistrates who have objected to the payment of these fees. Being fairly well up in all matters relating to the administration of medical relief to the poor, I have not heard of any recent action that has been taken, either by the Middlesex justices or the justices elsewhere, in deprecation of the payment of fees to medical men for making post-mortems or attending to give evidence in coroners' courts, for the simple reason that no abuse of the powers of ordering coroner's inquisitions has taken place now for some time past. I write abuse, as it is notorious that such abuse did once exist, though, as I do not care to wound the feelings of the relatives of the dead, I refrain from mentioning names; added to which, from inquiries I have made, so far as the Middlesex justices are concerned, the question as affecting the medical officers of Poor-law hospitals has not been mooted at all.

Having so far disposed of the alleged interference of the justices, I pass on to the consideration of your annotator's opinion, "that such institutions come under the head of any public hospital or infirmary, &c., &c.;" and here I make bold to traverse it altogether, although it will necessitate my being somewhat prolix, which I trust will be forgiven when I state that it will afford me the opportunity of paying a great tribute to the memory of the founder of your journal (Mr. Wakley), to whom the profession lays under a deep debt of obligation for the many services he was enabled to render it. Some thirty years ago or thereabouts I was summoned to give evidence at an inquest he presided over. We both happened to arrive some little time before the jury was empanelled, when I took occasion to remark how much the profession was indebted to him for the passage of the Coroner's Witnesses Act, and in the course of the conversation instanced the case of my own father, who prior thereto had been repeatedly called on to make post-mortems and attend and give evidence without fee or reward, an injustice he deeply felt. Mr. Wakley replied, "Yes, I had a good deal of trouble to get the Bill through," which was followed by my asking how it happened that the physicians and surgeons of voluntary hospitals and the medical superintendents of county and borough asylums were exempted from its provisions? Was it not very hard, I said, on the first especially, to which he answered as follows:—"I was compelled to accept the amendment (section 5) of the Act, as the country gentlemen asserted that inquests would be indefinitely increased if hospital surgeons and physicians were permitted to receive fees." There the conversation came to an end. But to my contention. On reference to the section it will be seen that the parties excluded from the provisions of the Act are distinctly named therein, and they are only those I have above referred to. At the time the Act was passed workhouses were almost exclusively used as test places for those to whom out-door relief was refused, but little by little they became diverted from their original purpose—they became, in fact, not workhouses at all, but huge receptacles for the aged, the sick, and infirm; but still the administrative provisions remained identically the same as they remain to this day. At last the absence of all decent consideration for the really sick led to the issue of your commission, its exposure, the public scandal therefrom, and ultimately enforced legislation, culminating in the Metropolitan Poor Act. It is possible—nay more, it is highly probable—that if forty-five years ago the author of Section 5 could have foreseen the size and dimensions to which this indoor relief of the sick poor would have proceeded, he might have formulated, in his ungenerous amendment, the distinct exclusion of workhouse infirmary superintendents from the benefits of the Act; but he did not, and I argue therefrom that no coroner, whether medico-legal or not, has the right to misinterpret to the injury of a medical officer its plain reading.

If it be seriously argued that the medical superintendent of a workhouse infirmary or his assistant is not entitled to a fee, then it is evident that the workhouse medical officer, so far as his sick wards are concerned, labours under the same disability, and the late Mr. Wakley (who was always credited with a keen appreciation of the meaning of words) and all the coroners contemporary with him and since have been in error, and therefore some thousands of pounds have been illegally paid to such gentlemen.

But it may be said that the taking of these people out of workhouses proper, and housing them in palatial buildings called asylum hospitals, bring the medical attendants under the same category as the proscribed physicians, surgeons, and insane superintendents; but I contend it does not. The sick inmates of these places are still paupers, are still subject to the same disabilities as regards their admission and discharge as they would have been if they had remained in the workhouse from which they have been transferred.

With my expression of regret that I should trespass at such length on your space, believe me, Sir, yours respectfully,

Soho-square, April 19th, 1882. JOSEPH ROGERS.

"MEETING UNQUALIFIED PRACTITIONERS."

To the Editor of THE LANCET.

SIR,—I should have thought that my emphatic denial in your issue o the 1st of April last to the accusation brought against me by Mr. Thomas Percival would have sufficed, without again advertising me with the above opprobrious heading. Let Mr. Thomas Percival substantiate his charge. If it be true, he can easily do so, as Knottingley is not a large place. To prove my veracity I enclose affidavits from Mr. Johnson (Mr. Thomas Percival's late unqualified assistant), and also from my late and present partners. In common justice to myself, I must request you to publish this letter and the enclosures in their entirety, as a slur has been cast upon my professional reputation.

I am, Sir, yours faithfully,

CHARLES GRABHAM,
M.B. Lond., M.R.C.S. Eng., L.S.A. & L.M.,
J.P. for the Borough, and Coroner for the
Pontefract, May 1st, 1882. Honor of Pontefract.

"Bridge House, Knottingley, April 30th, 1882.

"My Dear Sir,—I am in receipt of yours of the 29th inst., and beg to state in reply that you never met me in consultation from the time of my leaving Mr. Percival as his assistant until I became qualified. Both Dr. Oxley (your late partner) and yourself met me in consultation during my assistantship with Mr. Percival, with his knowledge and consent.

"Believe me, yours respectfully,

"THOMAS JOHNSON."

"Pontefract, May 1st, 1882.

"I declare on my honour, and if necessary on my oath, that Dr. Grabham never met any unqualified practitioner in consultation during our partnership, from 1862 to 1877 inclusive.

"ROBERT OXLEY, M.D., F.R.C.S.E."

"Pontefract, May 1st, 1882.

"I declare on my honour, and if necessary on my oath, that Dr. Grabham never met any unqualified practitioner in consultation during our partnership, which has existed from 1878 until the present time.

"H. J. SIMMS, L.R.C.P. and L.R.C.S. Ed."

"CASE OF RECURRENT TUMOUR OF THE MAMMA FIVE TIMES OPERATED UPON IN FOUR YEARS."

To the Editor of THE LANCET.

SIR,—With reference to Dr. Page's case, reported in your issue of the 22nd inst., I wish to say that I recollect perfectly his patient and the circumstances of the fourth operation, which took place in October, 1880. At that time I was assistant to Mr. Bell, Eldon-square, Newcastle-on-Tyne. The patient was in excellent health, and gave the history related by Dr. Page. The tumour was very large, not ulcerated, so far as I can remember; but the "keloid growths" were very prominent, radiating in long, red streaks from the base of the tumour. Mr. Bell made his incisions so as to remove these growths, so that although Dr. Page has also removed the implicated skin, there is room for a guarded opinion as to the eradication of the disease. There was no suppuration consequent on the fourth operation. The patient made a remarkably rapid recovery. I made many microscopic sections, and came to the conclusion that the tumour was a round-celled sarcoma, very few spindle-shaped cells being present.—I am, Sir, yours truly,

Limerick, April 23rd, 1882. M. D. KEILY, L.R.C.P.

GAS BATH.

To the Editor of THE LANCET.

SIR,—I am anxious to know in what manner I can have the poisonous products from a gas bath conveyed away with safety? My bath-room is about nine feet square and eleven feet high, and contains a small fireplace, with registered stove. My own idea is to have the pipe, through which the gaseous products travel, carried a few feet up the chimney, but I shall feel obliged for the opinions of some members of the profession who are more acquainted with the workings of gas baths than I am. I am, Sir, yours, &c.,

May 1st, 1882. F. E. RYOTT, M.D., F.R.C.S.

THE MEDICINAL QUALITIES OF PETROLEUM.

THE press in Germany has lately given prominence to many subjects in connexion with petroleum, the discoveries in Hanover and elsewhere of abundant supplies of this substance having aroused popular curiosity on the matter. It is remarked that in a work published in 1625, Volck attributed to this product such medicinal virtues as to anticipate the patent medicine days in which we are living. Its external application was said to be very effective in cases of burns, wounds, &c., and, in addition to its demulcent and aperient virtues when used internally, it was said to be an effective insecticide. He called it earth-oil or earth-balsam.

INHALATIONS.

To the Editor of THE LANCET.

SIR,—My brief notice of Inhalations has brought on me such a flood of correspondence from all parts of the kingdom, that I must again trespass on your space to request the various gentlemen who have honoured me with letters of inquiry to accept this as the best reply a busy man can give them. Most of the letters ask for formulæ and quantities. Those I have employed are as follows:—

Amyl nitrite, pure for adults; one in ten of the tincture for children. Benzole, rectified, used undiluted; Bromine, three grains (i.e., ℥ j) in 200 minims of distilled water. Camphor, the B.P. spirit. Iodine, the P.B. vapor. Iodoform used pure. Kreosote deodorised, used undiluted. Mephitis putorius, one in ten of the tincture. Musk, one in ten of the tincture. Phenol, absolute, ten grains to one ounce of boiling water. Oleum pini, all the pine oils, including terebene, also eucalyptus, used pure. Soda chlorata, the P.B. liquor. Stramonium, used by burning the powder or the P.B. tincture as a spray. Sulphurous acid, the saturated solution, or by burning brimstone. Thymol, fifteen grains to one ounce. Belladonna, drosera, ipecacuanha, not being volatile, used as a spray. I do not like sponge, because it tempts people to employ the same piece repeatedly. It thus stores disease-germs, and also ceases to be permeable. A better plan is to lay a thin stratum of well pulled absorbent wool in the cap, and then deposit on it about five minims of liquid, or about twenty grains of solid, of the material to be inhaled. Over this put another thin layer of absorbent wool, then replace the cap and adjust to the face. The drug should be renewed every half hour, fresh wool being employed each time. The inhaler should be used all day if possible. At night I frequently direct the patient, if likely to be disturbed, to wear the respirator with some appropriate sedative, and to go to sleep with it on.—I am, Sir, yours obediently,

Seymour-street, Hyde-park, April 25th, 1882. EDWARD BLAKE.

INFECTION AND CONTAGION.

To the Editor of THE LANCET.

SIR,—What is the duty of the medical practitioner with reference to any infectious or contagious diseases that may come under his care? Is he obliged to report their occurrence to anyone in authority? If not, is he in any way responsible that such infectious disease is reported by the family or friends of the patient to such authority? What is the usual procedure to be adopted in sending small-pox cases to a hospital? Who should take the initiative in such matters, the patient's friends or the medical attendant? Lastly, where are the rules and regulations in relation to such matters to be obtained? Could you or your numerous readers inform me on any of the above points?

I enclose my card, and remain, Sir, yours, &c.,

May 1st, 1882. ICONOCLAST.

*** Our correspondent has no duty of notification of infectious disease, unless some local enactment apply to his place of residence, and this he will best ascertain by application to the clerk of the sanitary authority.—ED. L.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Marshall, London; Dr. Eustace Smith, London; Mr. Thomas Bryant, London; Mr. Thomas Blair, Leeds; Mr. F. Hall, London; Mr. Brett, Watford; Mr. Stanley Murray, London; Dr. Walford, Finchley; Mr. Rose Adams, London; Mr. Hempson Denham; Mr. Tallack, London; Dr. Kebbell, Brighton; Mr. Thomas, Maesteg; Mr. King, Saffron Walden; Mr. Ringwood, Kells; Mr. Grabham, Pontefract; Mr. Bland, Redcar; Dr. MacCormac, Belfast; Mr. Ford Stanley, Camberton; Dr. Ryott, Newbury; Dr. Unna, Hamburg; Mr. Cooney, London; Dr. Gorrequer Griffith; Mr. Ladendorf, St. Andreasberg; Mr. E. F. Griffith, London; Dr. Romanelli, Naples; Mr. Makuna, London; Messrs. Corbyn, Stacey, and Co., London; Mr. Lowndes Liverpool; Dr. A. Napier, Glasgow; Dr. Longhurst; Mr. M'Donagh, London; Mr. Charles Hawkins, London; Mr. Crookshank, London; Mr. Noble, Garstang; Mr. Elliott, Carlisle; Mr. Smith, Sedgefield; Mr. Cottrell, London; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. Masters, Thrapston; Mr. Johnson, Liverpool; Mr. Harrison, Sheffield; Messrs. Newman and Son, Dorchester; Mr. Low, London; Mr. Hammond, Taunton; Messrs. Paul Brothers, Southampton; Mr. Houseman, Newcastle-on-Tyne; Dr. Diver; Dr. Braithwaite, Leeds; Messrs. Livingstone and Co., Edinburgh; Messrs. Jones and Barber; Messrs. Foster and Co., Sheffield; Mr. Lawrence, Rugby; Mr. Todd, Carlisle; Mr. R. Freeman, London; Messrs. Bell and Co., Lancaster; Dr. Warner, London; Mr. Richmond Leigh, Liverpool; Mr. S. S. Carter, Leeds; Mr. Robinson, Manchester; Dr. Chalmers, London; Dr. Lowndes, Egham; Mr. Reginald Harrison, Liverpool; Dr. Dunlop, Jersey; Mr. Berkeley Hill, London; Dr. Wilks, London Mr. Fosbroke, Stratford-on-Avon; Mr. Worsley, Preston; Mr. Scott, Dushunga; M.R.C.S.; M.D., London; L. W., Bristol; M.D., York; Melampus; M.D. Lond.; Medicus R.C.; Hydropathy; Palmam qui meruit ferat; M.R.C.S., L.R.C.P. Ed.; Civil Surgeon; A General Practitioner of many Years; Junior; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Blair, Alnwick; Mr. Begg, London; Mr. Sangster, Adelaide, Australia; Mr. Buchel, Brighton; Mr. Hamnet; Mr. O'Callagan, Dublin; Mr. James, Worthing; Messrs. Stevens and Travis; Messrs. Lee and Martin, Birmingham; Mr. Lambert, Bradford, Yorks; Dr. Rayne, Lancaster; Mr. C. Tayler, London; Mr. Blake, Dalton-in-Furness; Mr. J. Phillips, London; Mr. Clapp, Gloucester; Messrs. Nye and Co., London; Mr. Johnston, Glasgow; Dr. Hunter; Mr. Pigott, Sheffield; Mr. Mann, Leith; Mr. Beck, Stratford-on-Avon; Mr. Brockelbank, London; Mr. Eschwege, London; Mr. Staddon, Ipswich; Mr. Van Praagh, London; Mr. Bedingfeld, Pimlico; Mr. Essex, Pontypool; Dr. Ross, Stamford-hill; Mr. H. A. Thompson, London; Messrs. Beal and Co., Brighton; Mr. Griffiths, Liverpool; Messrs. Lehman and Co., London; Mr. Bell, Petersfield; Mr. Lyon, Shakeham; Mr. Atkinson, Ripondon; Messrs. Kilner and Co., London; Messrs. Corry and Co., Belfast; Messrs. Hilliard and Son, Glasgow; Mr. Marley, Padstow; Dr. Finch, Salisbury; Mr. Sergeant, London; Mr. Burgess, Bristol; D. E. B., Sheffield; Registrar, Bath; T. S., London; L. O.; W. B., Liverpool; Lecturer, Edinburgh; Medicus, Rhyl; Vectis; B. X. B. Surgeon, Brixton-road; R. T., Hammersmith; W. B. Y. Z.; G. C. H., Sydenham; Medicus, Liverpool; Medicus, Williton; B. A., London Medicus, Exeter; Mayfair; G. P. E.; M. B.; J. B.; H. M.; Surgeon, Hackney; &c., &c.

Glasgow Herald, Coffee Publichouse News, Church of England Temperance Chronicle, Exhibition Review, South Western Star, Aberdeen Journal, Nottingham Journal, Airdrie Advertiser, &c., have been received.

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